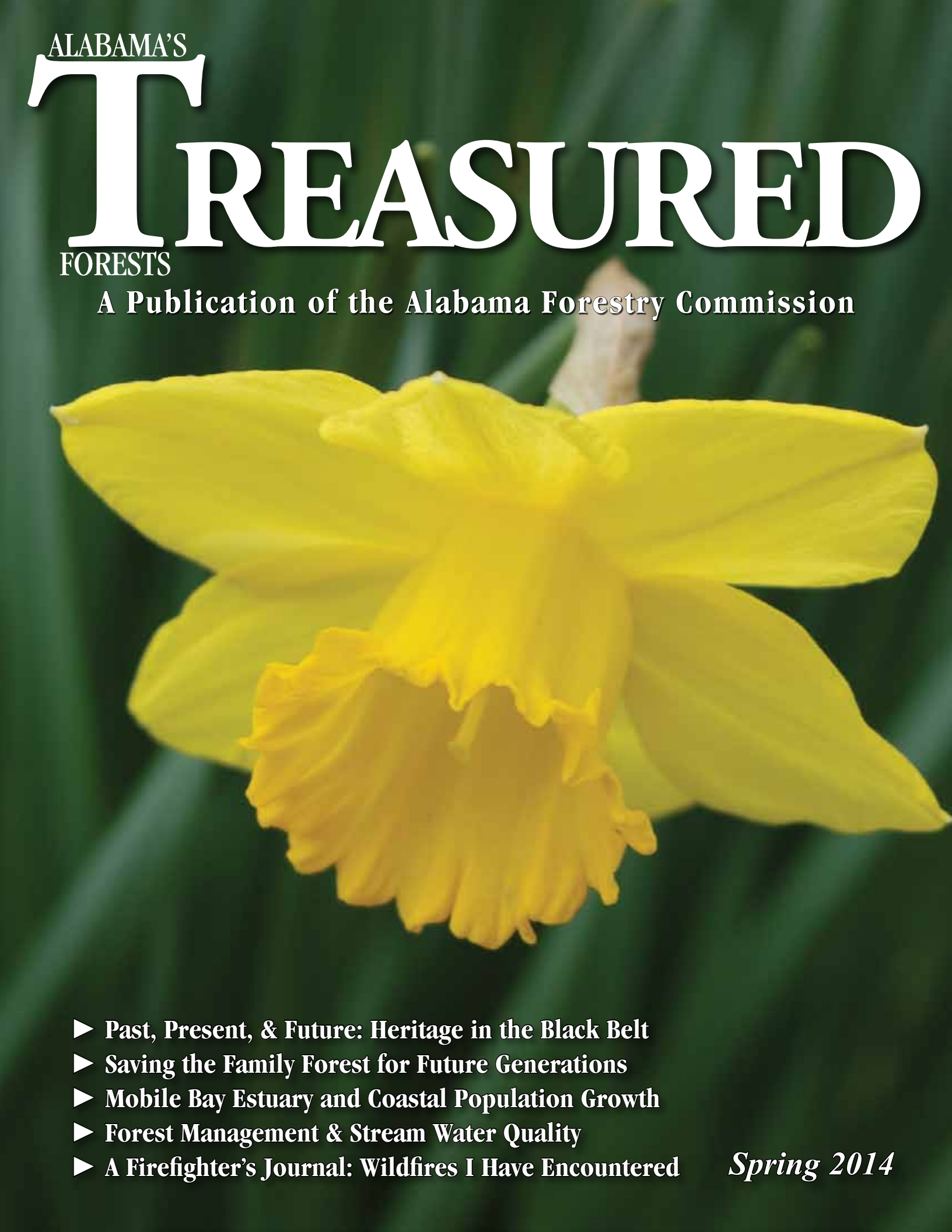
ALABAMA'S

# TREASURED FORESTS

A Publication of the Alabama Forestry Commission



- Past, Present, & Future: Heritage in the Black Belt
- Saving the Family Forest for Future Generations
- Mobile Bay Estuary and Coastal Population Growth
- Forest Management & Stream Water Quality
- A Firefighter's Journal: Wildfires I Have Encountered

*Spring 2014*

# Message from the *STATE FORESTER*

*Greg Pate, State Forester*

"Hello, it's nice to meet you." I have been saying that a lot since becoming the State Forester of Alabama in mid-February. Folks reply in kind and many say, "Welcome home to Alabama." It is great to be home. I was born and grew up in Anniston and graduated from Auburn in 1981. Being "home" after 30 years in North Carolina means strengthening relationships with family and friends, some of whom I had lost touch with over all these years.

My job as State Forester also means building relationships with a wide-ranging group of people in Alabama, the South, and across the nation while representing the interests of Alabama forest landowners like you. In this brief period, I have already travelled much of our state getting to know Alabama Forestry Commission associates, landowners, political leaders, forest industry leaders, government agency personnel, non-government organization leaders, and others. There are many more people to meet, and I look forward to the opportunity.

Young people often enter the forestry profession because they love the outdoors and working with trees. However, they quickly learn that a large portion of any forester's job is relating to and earning the trust of people. Here at the Alabama Forestry Commission, we encourage all of our associates to be a key part of their community. This, of course, does not take much encouragement, as the individuals we hire are normally already woven into the fabric of their community. Their involvement in local civic and church groups not only benefits their communities, but also builds a trust with local landowners like you who depend on our associates as well as the other natural resource professionals in your area to provide the expertise necessary to protect, manage, and improve a wide array of forest resources. Since you are receiving this magazine, we hope this relationship is already established.

We thank you and appreciate the opportunity to work with you as well as the thousands of other Alabama landowners to whom we annually provide on-the-ground assistance. This does not take into account all those landowners affected by wildfires our firefighters suppress each year; the thousands of adults and children we reach annually in a wide array of educational and outreach programs our agency provides across the state; all the foresters, loggers, and others we engage with our Best Management Practices for Forestry courses each year; or the hundreds of volunteer fire department personnel with whom our agency trains and interacts annually.

Yet with all that said, there is more to do. Many people across our state are not aware of the mission of the Alabama Forestry Commission or the services we provide. We need the opportunity to build those relationships, and you can help us in this endeavor. If you have neighbors or friends who could benefit from the expertise of our associates, please let them know to contact us. We would love to meet them. Ultimately our mission is about the stewardship of our natural resources, but it begins with personal relationships. As your State Forester, I look forward to building relationships with many of you in the coming months and years.

ALABAMA'S TREASURED FORESTS

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*Cover photo by Elishia Ballentine*

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*Alabama's TREASURED Forests* (ISSN 0894-9654) is published by the Alabama Forestry Commission, 513 Madison Avenue, Montgomery, AL 36130. Telephone (334) 240-9355. Bulk rate postage paid at Montgomery, Alabama. POSTMASTER: Send address changes to: *Alabama's TREASURED Forests*, P.O. Box 302550, Montgomery, AL 36130-2550. Website: **www.forestry.alabama.gov**

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# Past, Present, & Future: Heritage in the Black Belt

*By Brigetta Giles, Forester,*
*Alabama Forestry Commission*

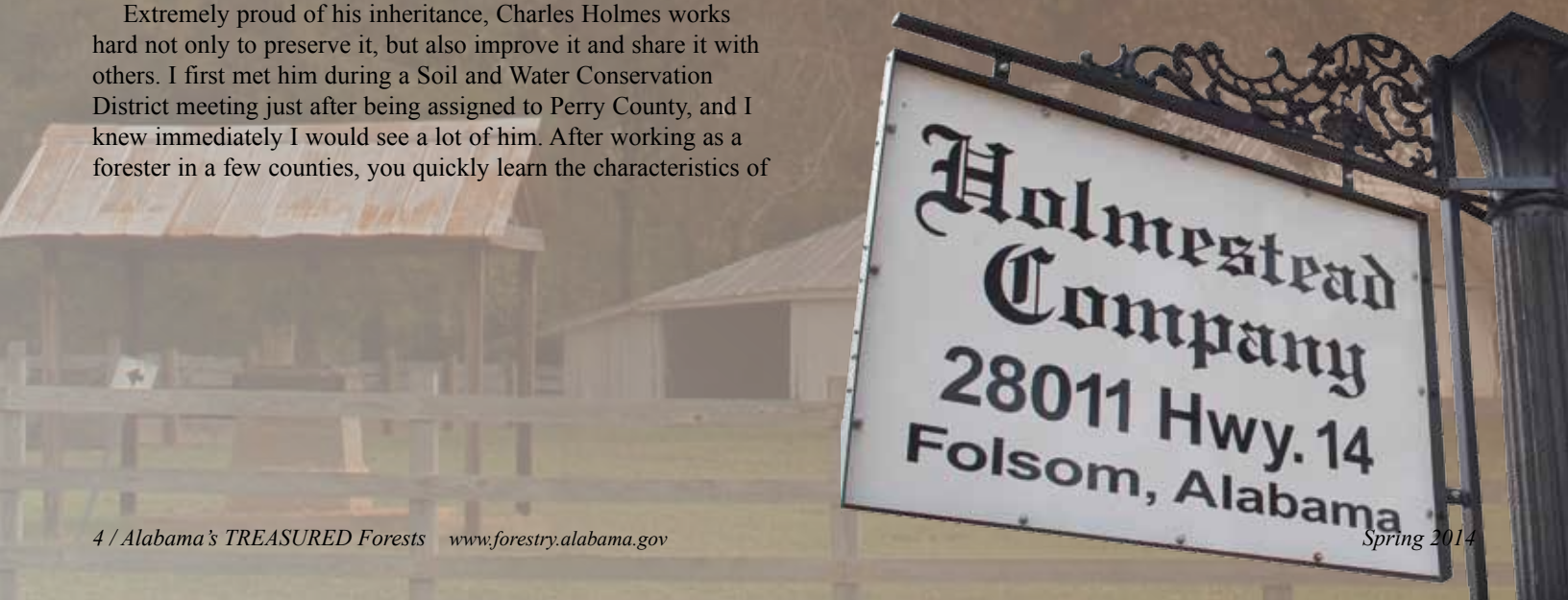
As you turn a curve on Highway 14, just seven miles west of Marion in Perry County, it is like stepping back in time. The community is Folsom. There you will find the Holmestead Company's Moore-Webb-Holmes Plantation, one of the oldest continuous working family farms in the state of Alabama, actively managed by Charles A. Holmes, the fifth-generation descendant of the original owner. This TREASURE Forest is certified as a "Century and Heritage Farm" by the Alabama Department of Agriculture and Industries, the plantation is also listed on the National Register of Historic Places.

In 1819 shortly before Alabama attained statehood, Charles' great-great-grandfather, William "the wagon maker" Moore, journeyed here from South Carolina. The 80 acres he homesteaded has grown over the years to several thousand acres. Strolling the quiet peaceful grounds today, one can only imagine the hustle and bustle of this busy plantation during a bygone era. Although the original house was lost in a fire in 1927, you can still tour the family home site. Several authentic structures remain intact and preserved, many of them dating back to the 1800s and the handiwork of Moore "the wagon maker." There are more than 28 agricultural buildings which include a carriage house; a smoke house; a chicken coop; a potato house with a pit for storing vegetables, lard, and sausage; a blacksmith shop; and barns housing farm equipment such as wagons, plows, hay rakes, and other antique tools. In addition to the new gin and seed house, there's the original log seed house that was used with the first cotton gin. One of the main attractions is the plantation's 1875 "Country Store" with its pot-bellied stove, which features a deed signed by Andrew Jackson, as well as other historic papers and items of interest.

Extremely proud of his inheritance, Charles Holmes works hard not only to preserve it, but also improve it and share it with others. I first met him during a Soil and Water Conservation District meeting just after being assigned to Perry County, and I knew immediately I would see a lot of him. After working as a forester in a few counties, you quickly learn the characteristics of a very active landowner. For one, they ask lots of questions, and right away they invite you out to see their property!

A graduate of Marion Military Institute, Charles studied agricultural economics at Auburn University. He also completed a summer exchange at Christ Church College in Oxford, England, studying British-American history, religion, and British architecture. He will tell you, however, that his real education came during the 20 years he served an agricultural apprenticeship on the plantation under his two uncles, J. C. and Charlie Webb. After they passed on, Charles and his family took the lead in operating the farm. He and his wife, Jenny Cooper Holmes, raised their three sons to actively participate in the family enterprise. All three and their families live within a 10-mile radius of the farm! The two youngest, Webb and Cooper, have followed in their father's footsteps and are now the sixth-generation farmers living on and working the same land that has been passed down to them.

The Moore-Webb-Holmes Plantation consists of 6,000 acres, of which 4,000 acres are forest land. With timber management being the primary objective of this TREASURE Forest, the Holmes family manages the forested acreage as a sustainable forest. Much of the forest in the last few generations had been predominantly planted in loblolly pine with a component of hardwood. These stands have either been thinned or converted to longleaf pine. There are approximately 700 acres of longleaf with additional acres planned for the future. Charles tries to burn a portion of the property every year, usually operating on a three-year burn cycle. He employs the services of a registered forester consultant. However, oldest son, William, is a certified pre-



scribed burn manager and together they conduct much of the prescribed burning themselves.

As with all forest landowners in Alabama, there are challenges for the Holmes family. They battle privet and kudzu. They have also identified and chemical-sprayed several cogongrass spots. In the ongoing war with feral hogs, Charles installed seven hog traps across the property with Environmental Qualities Incentives Program (EQIP) assistance through the USDA Natural Resources Conservation Service (NRCS).

In addition to timber, the Holmestead Company also operates a cattle business where they raise purebred horned Hereford and Brahman cross cow calf stock. Grazing pastureland comprises the remaining 2,000 acres of the property. The all-natural beef they sell is grass-fed and "Holmesgrown" deep in the rich soil of Alabama's Black Belt.

Wildlife is the secondary TREASURE Forest objective of the farm, both for watching and harvesting. Charles's sons started hunting with their dad at a young age, and now the five grandchildren are being raised to appreciate wildlife as well. Additionally, the plantation now offers hunting and fishing packages, along with a relaxing stay at the "Folsom Inn" Bed & Breakfast. Deer and turkey abound, along with rabbits, squirrels, quail, doves, ducks, and don't forget the wild pigs! Wildlife openings and food plots are maintained, plus several areas of native warm season grasses such as Alamo switchgrass and Eastern gamagrass. Habitat for the diverse wildlife is also supported by two creeks, as well as a 107-acre watershed lake where 21 bald eagles are nesting.

Education is another guiding principle at the Moore-Webb-Holmes Plantation, as Charles is always excited to introduce youth to the benefits of forestry and agriculture, as well as the importance of the environment and water quality. The property provides numerous conservation and preservation teaching opportunities, and is open by appointment to school groups, organizations, and individuals. Over the past few years, the Holmes TREASURE Forest has hosted several educational programs, including an annual "Classroom in the Forest" field day for all the fifth graders in Perry County (approximately 160 students). With the assistance of several different partnering natural resource agencies, they usually set up seven stations. Topics include: Flag a Tree, Oh Deer, Soil Profile, Soil Runoff, Skins and Skulls, Wildfire Protection, and the Cahaba River.


Perhaps the most successful event occurs almost every year on the first Saturday in October when the plantation comes alive . . . there is music in the air, hay rides, a corn maze, and pumpkins to pick from the field. "Fall in Folsom" provides a day of history, entertainment, and excitement for the whole family in a hands-on, demonstration-type teaching environment. This event is open to the public and promotes involvement of children and adults alike. All the original historical buildings are accessible in a museum atmosphere. Once again, all the partnering agencies (including the Alabama Forestry Commission, the Alabama Cooperative Extension System, the Alabama Wildlife Federation, and the Natural Resources Conservation Service) set up educational booths that provide an array of FUN teaching programs.

In 2008, the National Wild Turkey Federation's "In the Game" show was video-taped on the Holmes property, where Charles emphasized Conservation Districts working with partners. Then in 2010, he invited representatives from the USDA Natural Resources Conservation Service, Farm Service Agency, and the U.S. Fish and Wildlife Service to tour the property to observe various conservation practices being implemented. These practices included: understory thinning, longleaf restoration, prescribed burns, stream crossings, as well as wildlife habitat in longleaf pine and native grasses.

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# A Heritage in the Blackbelt

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Past and present, Charles has served on so many forestry-related committees – county, state, and national levels – there's not enough room here to name them all! He has spoken numerous times on various forestry-related topics, including a talk on the Longleaf Pine Restoration Initiative to a group in South Carolina in 2010. At the request of the Chief of the Forest Service, Holmes represented private land ownership in the United States at the World Forestry Conference in Buenos Aires, Argentina, in 2009.

For all of his endeavors, Charles was recognized as "Conservationist of the Year" by the Alabama Wildlife Federation, their highest honor. In 2011, he was named the Alabama Association of Conservation Districts "Supervisor of the Year," and was an inductee into the Conservation Hall of Fame, Southeast Region. He has also been awarded a "Special Service Award" By the National Association of Conservation Districts and he received an "Environmental Stewardship Award" presented by the National Cattlemen's Beef Association which recognizes cattlemen whose natural resource stewardship practices contribute to the environment while enhancing productivity and profitability. Other honors include the USDA's national winner of the "Earth Team Award" for dedication to conservation and outstanding efforts in the recruitment, training, and management of a superior volunteer program for the Perry County Soil and Water Conservation District.

Most recently, in 2013 the NRCS named Charles a "champion" of soils health. He encourages the use of all-natural fertilizers, and promotes "no till" practices, emphasizing that soil enrichment should apply not only to row crops but to timber as well.

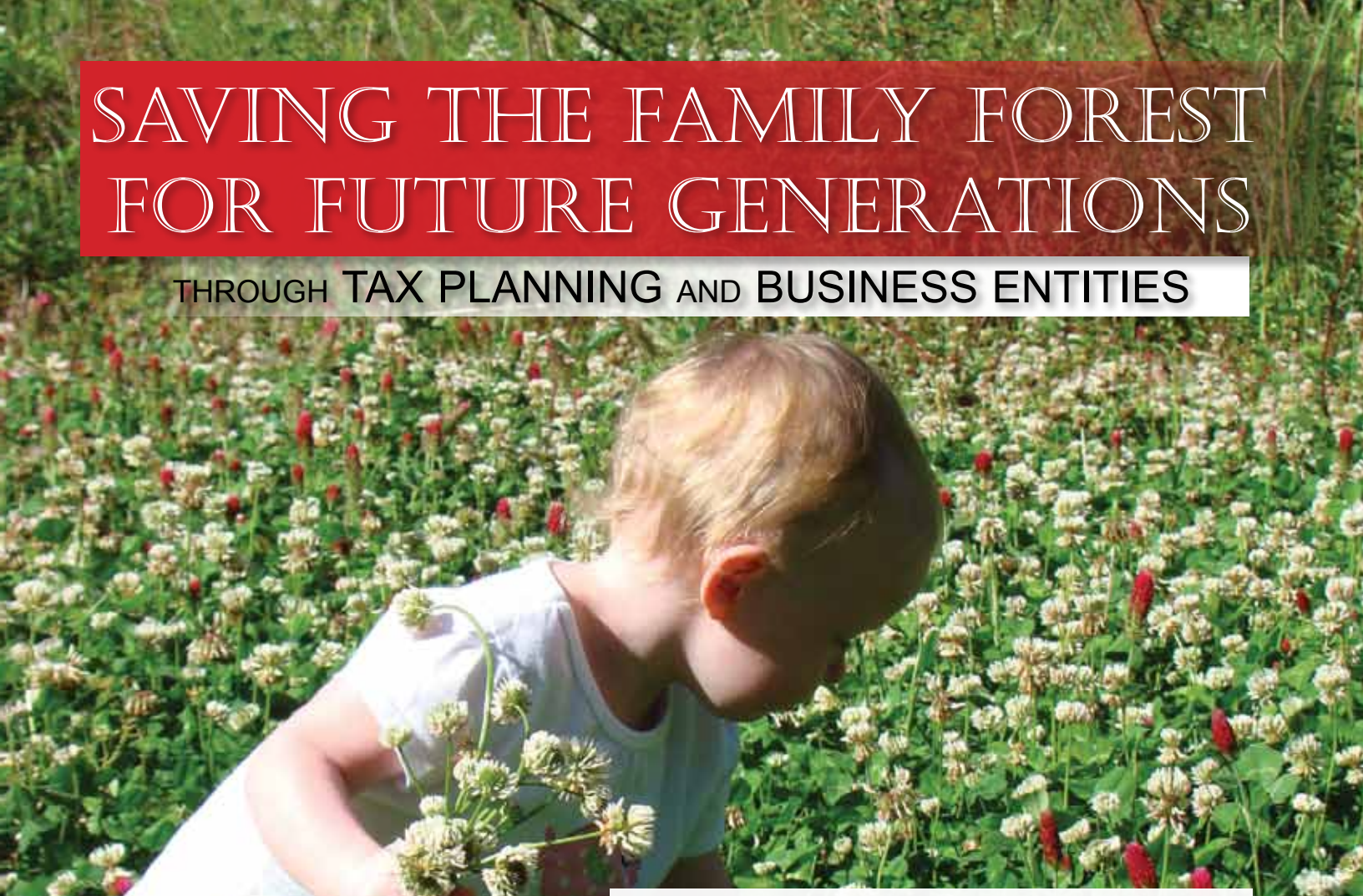
With his dedication to stewardship, water quality, and soil improvement, it's no surprise that the plantation was named a Helene Mosley Memorial TREASURE Forest Award winner in 2013. Charles noted that many of the components of the TREASURE Forest creed had been implemented by his family for years before he took over. (To watch the full presentation video, visit **www.youtube.com/user/ALForestryCommission**. To learn more about the Moore-Webb-Holmes Plantation, visit **www.holmesteadcompany.com/**.)

The successful operation of the Holmestead Company and the Moore-Webb-Holmes Plantation takes the whole family – everyone pitches in and each one plays a vital role. The days are often long and the work is hard. Charles noted, "People sometimes ask, 'why do you do this?' I suppose it can be attributed it to my Scotch-Irish upbringing . . . this inherent love of the land that was instilled in me. Farming and an agrarian lifestyle has been in my family for generations, down to my father and uncles. It's in my blood. All I've ever wanted to do was farm, and I've never regretted coming back to the family farm."

As for the future, Charles and Jenny both acknowledge that their main goal is to make sure the plantation is passed on to children and grandchildren that will continue to foster a love of the land. "The Holmes family has worked this beautiful farm and forestland for almost 200 years . . . we hope this next generation will take what we've been given and make it even better."

# SAVING THE FAMILY FOREST FOR FUTURE GENERATIONS

## THROUGH TAX PLANNING AND BUSINESS ENTITIES



*By Robert A. Tufts, Rebecca J. Barlow, and John S. Kush*

Why do you own land? Surveys of small-scale, private landowners in the South, especially those who own less than 100 acres, indicate that passing the family forest to the next generation was the highest priority. They want to improve the land value for future generations, but are concerned about protecting their investment. Two barriers to meeting their objectives are estate taxes and fragmentation of ownership.

A recent Congressional Research Service Report (R42959) states that the estate tax will affect less than 0.2 percent of decedents over the next decade. Also, about 65 farm estates and about 94 estates with half their assets in small business (with owners who expect their heirs to continue in the business) are projected to be subject to the estate tax

The larger problem may be fragmentation. For example, a father owned 500 acres and had five sons. If he gives each of those sons an equal share, then each son has 100 acres. If each of those children has five children and the parents treat them equally, then each grandchild will own 20 acres. In two generations, a working 500-acre farm has been reduced to 25 twenty-acre lots that are not practical to manage for income.

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# SAVING THE FAMILY FOREST

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## *Taxes*

The recently-passed American Taxpayer Relief Act of 2012 has made permanent (at least until Congress changes its mind) the transfer tax system that has been in a state of flux for the past twelve years. The gift and estate taxes have been reunified with an applicable exclusion amount of $5 million indexed for inflation and a maximum tax rate of 40 percent. With indexing, the applicable exclusion amount for 2012 was $5.12 million and the amount for 2013 is $5.25 million. Since Congress also made *portability* permanent (the opportunity for a surviving spouse to use a decedent spouse's unused applicable exclusion amount), if filed correctly, the surviving spouse has access to the "Deceased Spousal Unused Exclusion." Therefore, an individual could leave everything to a surviving spouse and pay no estate tax by using the unlimited marital deduction. Then the surviving spouse could transfer the first $10.5 million (in 2013) to children and grandchildren tax-free. This is not the estate plan we recommend.

For an individual with assets greater than $10.5 million there are several estate planning techniques that can be used to transfer assets either tax-free or at a discount to children and grandchildren, as well as options to pay some of the tax in installments.

**Estate tax planning** is essentially a gifting program where assets are transferred to younger generations for reduced or no gift taxes. By transferring assets *during life*, any future appreciation and income are excluded from the decedent's estate. Although it is generally not appropriate to make taxable transfers during life, the effective gift tax rate is lower because gift tax is paid on the amount the donee receives (tax exclusive), versus an estate where the tax is collected on the value before the transfer (tax inclusive). For example, if an individual wanted to transfer a tract of land worth $1 million to his children during life, he would need $400,000 to pay the tax owed on the transfer ($1 million gift times 40 percent tax rate). However, the individual's estate would need $666,667 in cash to pay the estate tax for the children to receive the property ($1,666,667 times 40 percent equals $666,667 leaving the $1 million property).

To make the decision a little more complicated, you have to consider your investment or "basis" in the assets transferred. The donee [recipient of gift while the donor is still living] takes the donor's basis (plus tax paid on the appreciation §1015), but the devisee [recipient of gift by a will] gets a change in basis to the fair market value on the date of transfer (§1014). Suppose the $1 million asset had a basis of $600,000. Then the donee's basis would be $760,000 ($600,000 donor's basis plus $160,000 tax paid on the appreciation) while the devisee's basis would be $1 million. With a 15 percent long-term capital gains rate, the donee would have a built-in capital gain tax of $36,000 and the devisee would have none. Overall, the lifetime taxable transfer would save $230,667 of federal tax.

The first step in tax planning for an estate is to make use of **tax-free gifts**. A parent can make unlimited transfers for a grandchild's tuition (in most states, college tuition is a support obligation of a parent and not a gift). A parent could also pay medical expenses of children and grandchildren, including insurance premiums, as tax-free transfers. In both cases, tuition and medical, the payment has to be made to the provider and not given to the child/grandchild (§2503(e)). A parent can also make annual exclusion transfers tax-free (§2503(b)) as long as the gift constitutes a present interest. The current amount is $14,000 per donee per year. If parents had two married children with four grandchildren, they could transfer $224,000 tax-free this year (two children, two spouses, and four grandchildren equals 8 times $14,000 each for husband and wife).

The second step is to transfer ownership of **life insurance** policies. Most insurers make the insured the owner of the policy. Under §2042, life insurance proceeds on policies owned by the decedent are included in his estate. If the insured has an estate tax issue, the children or grandchildren should be the beneficiaries of the life insurance, and an Irrevocable Life Insurance Trust (ILIT) should probably own the policy.

If steps one and two have not eliminated the estate tax liability, the individual should make lifetime transfers preferably using **split-interest techniques** (trusts) or business entities. When interest rates are low, as now, a grantor retained annuity trust (GRAT), private annuity, and perhaps a charitable lead annuity trust (CLAT) are appropriate.

Split-interest techniques are more tax efficient than outright gifts. For a GRAT, an individual transfers property to an irrevocable trust and takes an annuity interest for a fixed number of years, leaving a remainder interest to a beneficiary. The beneficiary's interest is a taxable gift. Because the remainder interest does not mature for some years, the value of the interest is discounted (actuarially valued), based on the number of years and the current rate set by the IRS (the 7520 rate which is 120 percent of the mid-term applicable federal rate rounded to the nearest 0.2 percent). As an example, a 15-year, $1 million GRAT with a $50,000 annuity and a 1.4 percent 7520 rate (March 2013) would result in a remainder interest of $327,724. If the $1 million could be invested at an average return of 5 percent over the next 15 years, there would still be $1 million in the GRAT for

the children. In other words, the grantor would use $327,724 of applicable exclusion amount (the amount available in 2013 for lifetime gifts is $5.25 million), so he did not pay any gift tax. He would receive $750,000 over the next 15 years, and at the end of 15 years his children would receive $1 million tax free. If the grantor does not live for the 15-year term, the technique does not work, but the grantor can pick any term keeping in mind that the longer the term the greater the benefit. It is also possible to adjust the annuity payment to create a zero-gift GRAT.

Business entities are also used to make discounted gifts. When a business owner transfers an interest to children, there are discounts available for minority interests and lack of marketability. Because the minority owner has little voice in partnership operations, cannot obtain a pro rata share by compelling liquidation, cannot obtain the value of his interest by redeeming it, cannot transfer his management rights, cannot compel distributions, and must pay taxes on his allocable share, he cannot sell his interest for the value of his fractional share. The actual discount should be determined by a qualified appraiser, but discounts of 35 percent are not uncommon. The discount for a business entity is a frequently litigated issue, but the discount for a split-interest transfer is statutorily set.

If a farm or business entity engaged in an active trade or business constitutes 35 percent or more of a decedent's estate, the estate may qualify for §6166 treatment. Section 6166 entitles the estate to a five-year deferral of the tax on the business entity, and then allows the estate to pay the tax in ten annual installments. In addition, tax owed on the first $1.39 million (for 2012) of business assets accumulates interest at only 2 percent.

## *Business Entity or Trust*

Management of the family forest is a typical problem for second- and third-generation owners. As the number of owners increases, it becomes difficult to agree on management objectives. A trust or business entity can be used to equally benefit the children and grandchildren, while vesting the management powers in one or more individuals.

The typical business entities used for estate planning are limited liability companies managed by managers and limited partnerships or more recently, limited liability limited partnerships. These entities allow one or more individuals, usually parents, to manage the business while gifting interests to children and grandchildren. Even though the children have an ownership interest in the business, they do not have any management rights. Other advantages of the business entity are limited liability, creditor protection, perpetual life, avoidance of ancillary probate, ease of gifting fractional interests, avoidance of partition sales, and no income tax at the entity level. It can also provide a succession plan. The children/grandchildren would receive income in proportion to their ownership interest, thus shifting income to younger generations. One disadvantage is that after the parents are gone, the children probably control the business and have the right to liquidate it.

A trust is an alternative to the business entity. A trust is an agreement between the grantor who funds the trust and sets the distribution criteria, and a trustee who has legal title to the assets but must follow the distribution criteria established by the grantor. The beneficiaries have what is called equitable title in the trust assets, and the trustee distributes trust assets for the benefit of the beneficiaries. Although many grantors utilize "corporate" trustees (typically the trust department at a bank), a trustee can be any competent individual, such as an attorney, an accountant, or even two or three of the beneficiaries. The typical trust set up as an estate plan rather than for tax planning would be a *revocable* trust with the parents as grantors and trustees, and the children and grandchildren as beneficiaries. The trust would become *irrevocable* upon the death of the grantors, and the successor trustees would assume ownership of the trust assets. The trustees would manage the family forest for the benefit of the beneficiaries.

The life of a trust is governed by the state's rule against perpetuities, but several states have abolished the rule against perpetuities and a trust in those states can have a perpetual life. The traditional rule against perpetuities allowed a trust to last for a life in being (child or grandchild) plus 21 years (Georgia); however, in Alabama and Florida, a trust that holds real property can last for 360 years. Even so, it is probably not practical for a parent to try to control property beyond three or four generations.

The trust would have many of the same advantages as a business entity – limited liability, creditor protection, etc. However, the major advantage of the trust is the inability of the children to thwart the parents' intent, because they cannot change the terms of the trust as they could with a business entity. That also means there is no flexibility with the trust as there would be for a business entity.

## *Conclusion*

It is possible to save the family forest with a little planning. It is important that you consider all of your goals when making any land management decision. For many, tax planning can save all but the largest land holdings from being lost to estate taxes. Using a trust or business entity to own the family forest can provide a long-term management plan and prevent it from being sold in a partition sale. Before making any decisions, you should consult a professional advisor.

For more information and workshops on this and similar topics, visit the Alabama Cooperative Extension System website at **www.aces.edu/gwcal/month.php**.

*Robert A. Tufts, Ph.D., J.D., LLM (tax) is an Attorney and Associate Professor; Rebecca J. Barlow is an Extension Specialist and Associate Professor; and John S. Kush is a Research Fellow; all in the School of Forestry and Wildlife Sciences, Auburn University, Alabama.*

# THE *Helene Mosley Memorial* TREASURE FOREST *Awards*

*By Allen Varner, Stewardship Forester, Alabama Forestry Commission*

The Helene Mosley Memorial TREASURE Forest Awards, initiated in 1978, annually recognize the most outstanding TREASURE Forests in Alabama, especially with respect to their educational value and use. The awards are sponsored by the Alabama Natural Resources Council and the W. Kelly Mosley Environmental Awards Program, which is administered by Auburn University.

The award is based on how well a landowner displays the TREASURE Forest philosophy of good stewardship. This philosophy is reflected by the forest management accomplishments as well as the landowner's commitment and support of educational activities on the property that promote good forest stewardship to others.

Each year, outstanding TREASURE Forest properties are nominated through the local county forestry planning committees, partnering agencies, and natural resource associations. The selection process begins in February, when an information packet is made available to interested parties through the Alabama Natural Resources Council (ANRC). The package contains the proper forms and a timetable for the nomination process.

In April, the nominations are reviewed by the TREASURE Forest Committee of the ANRC. The arrangement has changed over the years, but the nominations are currently grouped into regions (based on the six regions of the Alabama Forestry Commission) and field visits are scheduled. After the field visits, the TREASURE Forest Committee members meet to determine three regional recipients, North, Central, and South.

Each recipient of the Helene Mosley Memorial TREASURE Forest Award receives a $500 cash award, a recognition plaque, and a limited edition forestry-wildlife print. The award recipients are also recognized at the ANRC annual awards banquet and during local field events.

Since 1978, there have been 113 recipients of the Helene Mosley Memorial TREASURE Forest Award. A plaque recognizing all past Helene Mosley Awardees was unveiled at the Alabama Natural Resources Council Awards Banquet in 2012, created to increase awareness and promote the significance of the Helene Memorial TREASURE Forest Award. This plaque is currently displayed in the Auburn University School of Forestry & Wildlife Sciences Building.

| | | | |
|---|---|---|---|
| **1978** | **Boyd Batchelor*** Pickens County | **Jere A. Henderson** Pike County | **F. Mooney Nalty** Escambia County |
| **1979** | **Mildred Owens*** Etowah County | **Robert L. Trotter** Pike County | **Frank M. Stewart** Monroe County |
| **1980** | **Billy Ogden** Lamar County | **Russell Campbell*** Cleburne County | **Bealie Harrison** Clarke County |
| **1981** | **Harris M. Gordon*** Shelby County | **Robert L. Snyder** Barbour County | **M. H. Lee** Pickens County |
| **1982** | **Ralph McClendon** Etowah County | **John W. Rudd*** Russell County | **Blinn Sheffield** Wilcox County |
| **1983** | **Dorsey Taylor** Marion County | **Albert Rumph** Bullock County | **Bruce Owens*** Dallas County |
| **1984** | **Thurston Nix** Marion County | **Robert Sellers** Pike County | **J. R. Crosby*** Baldwin County |
| **1985** | **Floyd Clemons** Jackson County | **The James Hughes Family*** Houston County | **Vivian White** Clarke County |
| **1986** | **The Clyde Holcomb Family** Marion County | **H. C. Jordan** Dale County | **James Brothers Farm*** Bibb County |
| **1987** | **John & Dene Mathews** Cherokee County | **Ed McCullers*** Elmore County | **Ann Bedsole** Monroe County |
| **1988** | **William T. St. Clair, Sr.** Jackson County | **Dr. Hoyt A. Childs, Sr.** Geneva County | **Ozier D. Slay & Dozier E. Slay*** Baldwin County |
| **1989** | **Sim T. Wright** Fayette County | **Jimmy O. King** Pike County | **J. Gary Fortenberry*** Choctaw County |
| **1990** | **Jeff McCollum** Colbert County | **Joel & Paula Neighbors*** Coosa County | **W. D. Suddeth*** Hale County |
| **1991** | **R. B. Brown** DeKalb County | **McCallister Farms*** Houston County | **Sturdy Oak Farms** Escambia County |
| **1992** | **Seth Lowe** Lauderdale County | **White Oak Plantation** Macon County | **J. B. Dollar*** Tuscaloosa County |
| **1993** | **Sizemore & Sizemore Farms** Lamar County | **Albert & Thelma Schmidt** Elmore County | **W. A. Stacey & Son*** Conecuh County |
| **1994** | **William C. Snoddy** Winston County | **McConnell Family*** Coosa County | **Wilco Properties, Ltd.** Monroe County |
| **1995** | **Marvin Whited** Blount County | **Bolling P. Starke** Bullock County | **James & Joan Malone*** Mobile County |

***State Winner (tie in 1990)***

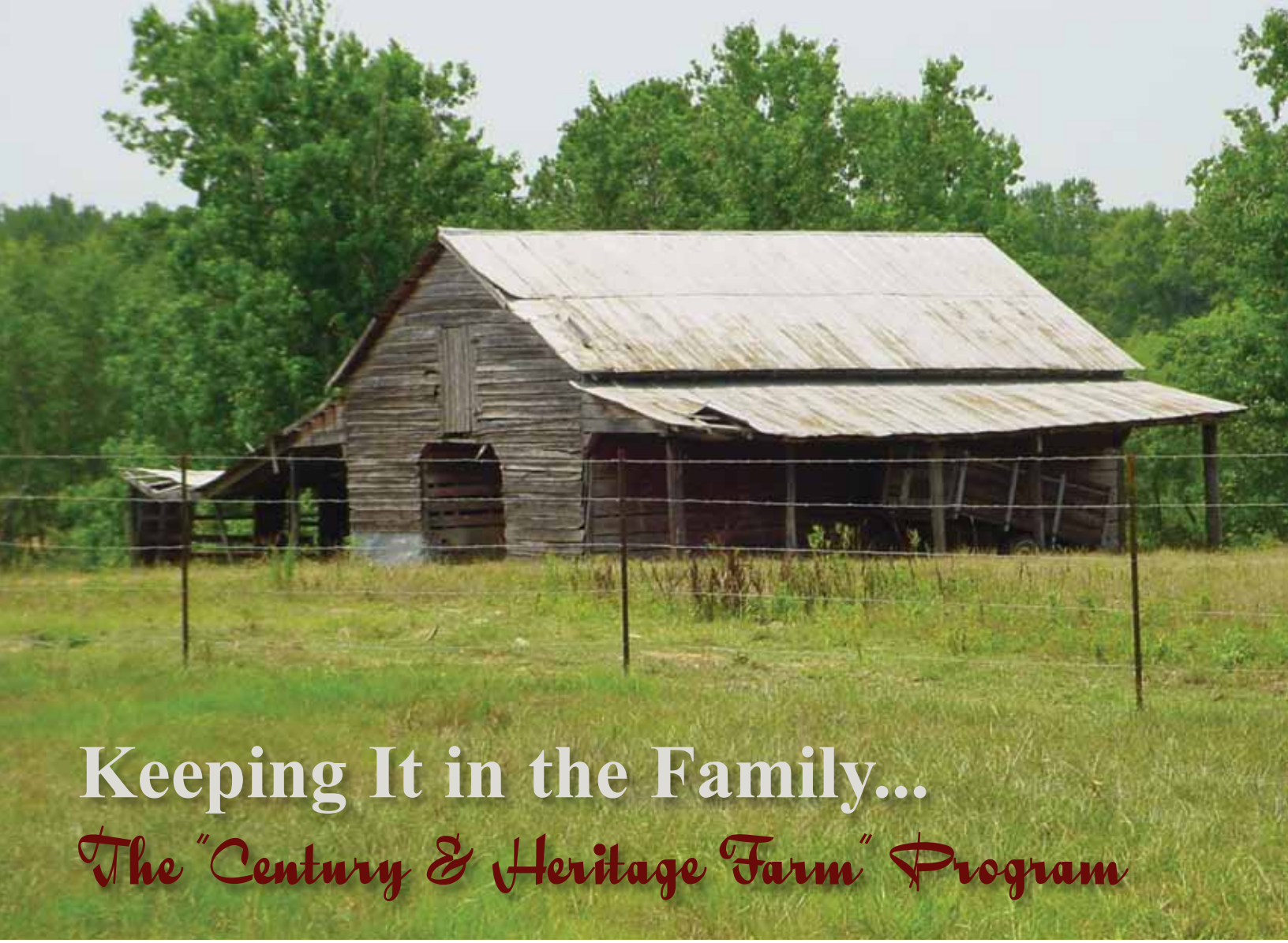
*(Continued on page 12)*

## *Helene Mosley Memorial*

*(Continued from page 11)*

| | | | | |
|---|---|---|---|---|
| **1996** | **Dr. Emory Cunningham**<br>Shelby County | **Horten & Gayle Adcox**<br>Coosa County | **J. C. Harper, Sr. Estate**<br>Wilcox County | **W. L. Franklin & N. W. Phillips**<br>Geneva County |
| **1997** | **McGiffert Farm**<br>Tuscaloosa County | **Jack McQuinn**<br>Jackson County | **Robert & Carolyn Brown**<br>Washington County | **Walter B. King**<br>Crenshaw County |
| **1998** | **Pine Lake-Tom Richey**<br>Fayette County | **James T. Hendon**<br>Randolph County | **David & Ruth Ball**<br>Clarke County | **Johnny & Beverly Taylor**<br>Pike County |
| **1999** | **Dr. Robert Mathews**<br>Colbert County | **Don & Lou East**<br>Clay County | **Don & Grace Stinson**<br>Conecuh County | **Jane James & Maurite Scanlan**<br>Bullock County |
| **2000** | **L. C. & Kaye Steedley**<br>Lamar County | **Raymond & Sara Shaw**<br>Coosa County | **Smith & Sons Farm**<br>Greene County | **Marion & Myra Mickelson**<br>Covington County |
| **2001** | **Dr. John P. Mims & family**<br>Colbert County | **Jerry & Genelle Brown**<br>Tallapoosa & Clay counties | **S. T. String**<br>Baldwin County | **John & Rebecca Langford**<br>Covington County |
| **2002** | **George & Sandi Morris**<br>Bibb County | **Daniel & Mildred Baker**<br>Tallapoosa County | **Fred Hahn**<br>Hale County | **H. C. Jordan Family**<br>Dale County |
| **2003** | **Mike & Cathy Strong**<br>Shelby County | **Roy & Mary Reeves**<br>Randolph County | **Frank Nalty & Leah Nalty Ralls**<br>Escambia County | **Raymond Newman**<br>Lee County |
| **2004** | **Dr. Jeffery Barton**<br>Walker County | **Mountain Shadows Farms**<br>Blount County | **Tutt Land Company**<br>Marengo County | **John & Carol Dorrill**<br>Pike County |
| **2005** | **Joel Pounders & Jeff Pounders**<br>Franklin County | **The Vines Family: Roger, Laurie, Emily & Anna**<br>Coosa County | **Dr. Beekman Lee Youngblood**<br>Dallas County | **Dr. Robert Parker & family**<br>Elmore County |
| **2006** | **Dr. Jim & Faye Lacefield**<br>Colbert County | **Lamar & Felicia Dewberry**<br>Clay County | **John & Marilyn Besh**<br>Sumter County | **Charles Clark, Amy Paul, & Hal Burnside**<br>Crenshaw County |
| **2007** | **Neal Taylor**<br>Colbert County | **John Osborne**<br>Clay County | **Salem & Diane Saloom**<br>Conecuh County | **Paul Langford**<br>Covington County |
| **2008** | **Chuck Welden**<br>Coosa County | | | |
| **2009** | **Raymond Jones**<br>Jackson County | **Dr. Findley & Bette McRae**<br>Greene County | **Gail & Phillip Jones**<br>Covington County | |
| **2010** | **Barton Ridge**<br>Coosa County | | | |
| **2011** | **Bobby Jennings**<br>Tallapoosa County | **O. M. & Carolyn Becton**<br>Choctaw County | | |
| **2012** | **James, Joyce & Bradley Barker**<br>Cleburne County | **Dr. Chip & Louise Taylor**<br>Hale County | **Porch Band of Creek Indians**<br>Escambia County | |
| **2013** | **Charles Holmes**<br>Perry County | | | |

***TREASURE Forest . . . Timber, Recreation, Environment, and Aesthetics for a Sustained Useable REsource***



# Keeping It in the Family...

## The "Century & Heritage Farm" Program

*By Amy Belcher,*
*Alabama Department of Agriculture and Industries*

How old is your tree farm? Has the property passed from generation to generation, remaining in your family for a hundred years or more? The Century and Heritage Farm program is designed to recognize and honor those farms that have been in operation as a family farm over a long period of time and have played a significant role in Alabama history. Beginning June 1, 2014, the Department of Agriculture and Industries will accept applications for the 2014 Century and Heritage Farm program.

A "Century Farm" has remained in the same family continuously for at least 100 years, and currently has some agricultural activities on the farm. The farm must include at least forty acres of land and be owned by the applicant or nominee.

A "Heritage Farm" has been operated continuously as a family farm for at least 100 years. It must possess interesting and important historical and agricultural aspects, including one or more structures at least forty years old. The farm must be at least forty acres of land owned and operated by the applicant, who must reside in Alabama.

The idea for the Century and Heritage Farm program was born in 1976 when the director of the Alabama Historical Commission and a representative from the Alabama Department of Agriculture and Industries met to discuss a way to recognize small family farms that had been in operation over a long period of time. It was decided that recognition should be given to these farms because they had played such a significant role in Alabama's history.

At that time, the population in rural Alabama was rapidly changing as people moved to urban areas. The number of family farms was also diminishing rapidly then as it still is today. It was agreed that farms with over one hundred years of ownership should be awarded a certificate to recognize this significant achievement, and the Alabama Department of Agriculture and Industries would administer this program. The first certificates of recognition were presented in December of 1977 at an Alabama Farm Bureau meeting in Birmingham. To date, over 560 farms have been recognized from all across the state.

If you feel your farm meets the above qualifications and you are interested in applying for the 2014 program, please contact Amy Belcher at (334) 240-7126 or by e-mail at amy.belcher@agi.alabama.gov. All applicants must complete an Ownership Registration Form supplied by the Alabama Department of Agriculture and Industries. The application deadline for the 2014 Century and Heritage Farm program is August 29.

# HARDWOOD CORNER

*By Jim Jeter, BMP Forester/Hardwood Specialist,*
*Alabama Forestry Commission*

The 61st Annual Southern Hardwood Forest Research Group conference was held on February 4, 2014, in Stoneville, Mississippi. This meeting provided an excellent opportunity for those interested in all aspects of hardwood management to gain more insight about southern hardwoods and to meet some of the staff housed at the Center for Bottomland Hardwoods Research.

Since I am not a research forester – in fact, far from it – some of the material covered is over my head at times. However, the presenters do an outstanding job of trying to reach down to my level. This year several topics were really appealing due to the fact that they dealt with hardwood markets and trends. Dan Meyer (Editor, Weekly Hardwood Review out of Charlotte, North Carolina) presented "Trends in Domestic and International Hardwood Lumber Markets." Dr. Brooks Mendell (President, VP Research, Forisk Consulting LLC, out of Athens, Georgia) discussed "Trends in Current and Future Hardwood Pulpwood Markets." Dr. David Jones (Associate Professor/Extension Specialist, Mississippi State University, Starkville, Mississippi) presented "Effects to Landowner of Changes in Hardwood Lumber Manufacturing in Our Operating Area."

My take-home message from these three presentations would be the following:

1. Know your local markets and the products they produce as well as the type of raw material they need to produce that product. This may seem simple-minded but things change over time, and unless you keep up with what's currently going on, you may not realize the changes in products or markets.
2. There is no economic reason not to be growing and managing Southern hardwoods on good hardwood sites . . . Who really knows what the future will bring?

For more information on Bottomland Hardwoods Research, write to Research Work Unit 4155, Center for Bottomland Hardwoods Research, Southern Hardwoods Lab, P. O. Box 227, 432 Stoneville Road, Stoneville, Mississippi 38776 or call (662) 686-3154.

## BMP/Water Quality Issues

Changing gears and putting on another cap, I wanted to take the time to explain an issue that has come up several times in the last month or so:

Stormwater runoff (discharge) from Alabama construction sites is regulated under Section 402 of the Clean Water Act (CWA). Section 402 outlines the National Pollutant Discharge Elimination System (NPDES) permitting program. The Alabama Department of Environmental Management (ADEM) permitting program requires owners or operators of construction sites that disturb one acre or greater, as well as sites less than one acre but part of a larger common plan of development or sale, to obtain authorization to release stormwater runoff from construction sites.

The rules and regulations associated with Alabama's NPDES General Permit for Construction Activities are intended to protect the natural water resources of Alabama. Vital to the effort to protect and improve water quality within the state, these important regulations were framed in accordance with and subject to provisions of the Federal Water Pollution Control Act, Alabama Water Pollution Control Act, and the Alabama Environmental Management Act.

Now why should all this be important to you? Over the past several months I have had calls from forestry operators who have been told they were out of compliance with the above regulations and that they needed to obtain an NPDES permit. This may or may not be the case, depending on the ultimate outcome or the reason the timber is being harvested. Normal silvicultural practices are exempt from this permitting system. However, if the reason or the ultimate outcome of the timber being harvested results in a land use change, i.e., from growing timber to some use other than a normal farming practice and one acre or more of land is bared, then a permit may be required.

Some examples would be:

- Building roads and stream crossings to harvest timber to build a housing development
- Building roads and harvesting timber to build a commercial site
- Building roads and harvesting timber, then advertising the land for sale as a commercial or development site

The best recommendation is to do is a little planning and ask a few questions before this happens to you. Sometimes incorrect information may be transmitted to ADEM about what is really happening on the property. If this is the case and you need help in justifying your silviculture practice, please feel free to contact me and I will assist you or guide you through the process. Call (205) 339-0929, extension 19, or write James.Jeter@forestry.alabama.gov.

# The Ugly Truth about a Pretty Tree

*By Jud Easterwood, Wildlife Biologist, Division of Wildlife and Freshwater Fisheries, Alabama Department of Conservation and Natural Resources*

Each spring, Alabama's landscape becomes increasingly dotted with beautiful flowering trees popping up along fence lines and in abandoned fields. From a distance, the white flowery trees are rather scenic, beckoning thoughts of warmer days ahead and – to some of us – inducing dreams of gobbling turkeys. However, upon closer inspection it becomes apparent that these trees are not one of our native flowering dogwoods or cherry trees, but a thorny invasive impostor – the Callery pear!

One of the most popular ornamentals in the Southeast is the Bradford pear, commonly planted along driveways and lawns with its uniform teardrop crown shape, the showy white flowers in spring, and the brightly colored orange-red foliage displayed in autumn. It is not uncommon to see multiple Bradford pear trees on a single lawn. They grow extremely fast, produce flowers in only three years after planting, and provide excellent shade all summer long.

Although these traits make it a favorite for many who want to beautify their properties, the Bradford pear brings with it some dark secrets. The growth form is such that the major branches fork at very narrow angles from the trunk. This trait, coupled with the fact that the wood is not exceedingly durable, results in splitting during periods of heavy wind or during snow and ice events.

The original "Bradford" was cultivated in 1908 in an unsuccessful attempt to breed resistance to fire blight disease into fruiting pear trees. Although the fruits from most commercial varieties of Bradford pear trees are actually sterile, they can sometimes cross-pollinate with other pears resulting in hybrids capable of producing viable fruits. This is the beginning of the real problem with the invasive, as birds and mammals relish fruits from these trees and disperse the seeds across the landscape.

Even though the cross-pollinating is problematic enough, perhaps the most concerning secret about the Bradford pear is the way in which it is cultivated. The root stock used for Bradford pears is the Callery pear from China. Even though the fruits from the above-ground pear tree might not be fertile, once the crown of the trees becomes damaged from wind and weather, the roots begin to sprout voraciously, popping up all around the tree. These sprouts are young Callery pear trees, which produce viable fruit and form dense thickets of thorny trees in a very short time. Regrettably, these trees can tolerate moderate shade and do well in a variety of soil types, making them likely to invade almost anywhere.

There are effective methods for eliminating this invasive. To begin, instead of planting Bradford pears for the spring flowers, plant natives such as flowering dogwood, Eastern redbud, magnolia, wild plum, or black cherry. There are numerous websites dedicated to promoting the use of native flowering plants for landscaping purposes, including a University of Texas at Austin website: **www.wildflower.org/collections/collection.php?collection=AL**.

If Bradford pear trees are recently planted, seedlings and shallow-rooted plants can be pulled by hand when the soil is moist. Smaller trees should be dug or pulled using a device similar in function to a Weed Wrench, which is designed to ensure the entire removal of the root system. As for larger trees, they should be cut down and the stump treated with glyphosate or triclopyr (as per label directions) or ground up to prevent resprouting by the root stock. Another option is to girdle the tree during the growing season (spring or summer) about 6 inches above the ground. Once the large trees are destroyed, it is imperative that the area around the stump is checked regularly for unwanted sprouting.

Spring is a wonderful time of year signaling the renewal of life with the budding of flowers, the buzzing of bees, and the gentle warming of the days as each morning passes. The unfortunate truth is that each year an increasing number of these spring flowers across Alabama's landscape are the offspring of Bradford pear trees, innocently planted to beautify lawns. Due to the nature of these trees, however, an action intended to beautify results in a very ugly situation.

# The Mobile Bay Estuary and Coastal Population Growth: The Challenge of Keeping What We've Got

*By Roberta Swann, Director; and Tom Herder, Watershed Coordinator, Mobile Bay National Estuary Program*


The Mobile Bay Watershed drains three quarters of the State of Alabama, much of Georgia and Mississippi, and even portions of Tennessee, making it the sixth largest basin by area with the fourth highest freshwater inflow in all of North America. At its southern terminus lies the Mobile-Tensaw Delta where all that fresh water mixes with salt water from the Gulf to form the rich, brackish waters of the Mobile Bay estuary. Its network of habitats supports the greatest diversity of species in any state east of the Mississippi River. Alabama's two coastal counties, Baldwin and Mobile, support 337 species of fish, 126 of reptiles and amphibians, 355 of birds, and 49 of mammals.[1] It also supports thriving shipping, tourism, and seafood industries and an unparalleled quality of life for over 600,000 humans. The influx of people moving to enjoy coastal Alabama's abundant natural resources poses the major threat to their continued existence.

This incredible species diversity is supported by an array of different coastal habitats that include rivers, streams, and the riparian buffers that border them; freshwater wetlands; longleaf pine forests and pine savannahs; uniquely adapted maritime forests; intertidal marshes and flats; beaches and dunes; submerged aquatic vegetation or sea grasses; and complex oyster reefs. They provide the targets of our recreation, the buffers against our frequent storms, the filters that remove pollutants from our waters, and the nurseries, refuges, and feeding areas for the wildlife, fish, and shellfish that we watch, hunt, catch and eat. As forests are cleared, wetlands filled, waters clouded with turbid sediments, and shorelines armored, these habitats disappear along with the services they provide us and the fish and wildlife that we value.

Several of the more important habitats supporting our great species diversity have suffered the most from human activity. While natural stressors such as erosion, storms, droughts, fire, and sea level rise underlie some habitat loss, it is what humans do that underlies the greatest losses. Critical coastal habitats that have been largely impacted include the following:


- **Wetlands** perform invaluable services such as shoreline stabilization; flood protection; groundwater replenishment; water purification; and provision of breeding, nursery, refuge, and foraging habitat for wildlife and aquatic animals. But half of naturally occurring wetlands have disappeared.[2] Human stressors include drainage, filling, construction, and tilling for agricultural use. Logging, especially of cypress in the early 20th century, required the construction of canals that decimated wetlands and introduced salt water that prevented regrowth. The rate of wetlands loss has slowed since the 1970s due to regulations, elimination of incentives for draining, monitoring and protection programs, public education, and restoration and creation activities.
- **Longleaf pine forests** support a broad diversity of specially adapted species, are very tolerant to natural stressors such as disease and wind, and actually require occasional fire. When Europeans arrived in North America, these forests covered 92 million acres across the south. The pressures of logging, development, and land conversion for agriculture have decimated them, and today only 4.3 million acres of longleaf pine forests remain, with many of them in poor or degraded condition.[3]
- **Maritime forests** are wooded stands of hardwood with shortened canopies (caused by exposure to salt-aerosol) that usually occur on the back dunes of barrier islands and always near or adjacent to the sea. They provide unique habitat for highly adapted animals, but their coverage has been greatly reduced by development pressures. Many of the remaining patches of maritime forests exist only under protection, since almost all would otherwise offer lucrative waterfront development opportunities.
- **Submerged aquatic vegetation (SAV)** has been called "the hallmark of healthy estuaries." Also called seagrass beds, they are highly productive ecosystems which provide food and habitat for abundant fisheries species and help improve water quality by stabilizing sediments and reducing turbidity. A 2002 analysis of SAV coverage funded by the State of Alabama and the Mobile Bay National Estuary program revealed that 70 percent of mid-20th century SAV beds had disappeared[4], with an additional 1,340 acres lost by 2009[5]. While excess nutrients, prop scars, dredging, and other stressors are blamed for SAV loss elsewhere, stormwater-borne sediments from construction sites and eroded stream banks are thought to be the major stressor in Alabama, clouding the water and keeping necessary light from penetrating to the SAV.

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# Mobile Bay Estuary

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With over half (53 percent) of the nation's population drawn to live in coastal counties that make up only 17 percent of its total land area[6], increasing urbanization and conversion of natural landscapes threaten these ecological treasures, the services and features they provide us, and especially the quality of the waters that are the main attraction on the coast.

Understanding how natural landscapes are changed to accommodate human activities and how those changes affect remaining habitats is necessary if we are to sustain the things we appreciate as we continue to grow. In 1987, Section 320 of the Clean Water Act established the National Estuary Program (NEP) to restore and protect estuaries of national significance. Designed to encourage local communities to take responsibility for managing their own estuaries, one of the roles of NEP is to build community consensus and collaborative decision-making processes to protect and restore the water quality and ecological integrity of these estuarine systems. After Congressional nomination, the Mobile Bay National Estuary Program (MBNEP) was established in 1995 as one of 28 programs across the U.S. The MBNEP works with citizen groups, industry, academia, as well as federal, state, and local agencies to identify and address local priorities to protect our estuarine resources. These priorities are codified in a Comprehensive Conservation Management Plan (CCMP) that guides collective efforts aimed at protecting water quality, sustaining populations of key living resources, managing vital habitats, ensuring human uses, and building coastal stewardship.

In 2008, the MBNEP joined forces with the National Aeronautics and Space Administration (NASA) to analyze land use/land cover and percentage of impervious surface changes around Mobile Bay dating from 1974. These studies use satellite

Photo by Mark Burkett

imagery from different time periods to determine where and how land is used across our area and the patterns of land conversion that accompany development and urbanization. Between 1974 and 2008, urban coverage in Baldwin and Mobile counties increased from 5.59 percent to 8.88 percent of the total study area, reflecting an overall 59 percent, or 47,692-acre gain in urban cover. These gains coincided with a decrease in upland forest coverage from 34.05 percent to 28.07 of the total study area, reflecting an overall 17.6 percent, or 86,599-acre loss in forest cover.

The primary feature of development that impacts water quality is the increase in impervious surfaces – such as buildings and pavement – that prevent the infiltration of rain water back into the ground. In a forested landscape, 40 percent of rainwater is lost to evapotranspiration, 25 percent to shallow infiltration and use by plants, 25 percent to deep infiltration to replenish ground water supplies, and only 10 percent to runoff. By contrast, in a typical urban setting with 75 percent impervious surface, 30 percent of rainwater is lost to evapotranspiration, only 10 percent to shallow infiltration, 5 percent to deep infiltration, and over half (55 percent) to runoff. Instead of soaking in, water falling on impervious surfaces accumulates and runs downhill with speed and force that erodes stream banks, causes sedimentation, and carries nonpoint source pollution from developed surfaces into coastal waters. A typical city block generates more than five times more runoff than a woodland area of the same size.

With the Clean Water Act successfully regulating industrial discharge into U.S. waters, the Environmental Protection Agency (EPA) considers runoff from urban areas the primary source of pollution to estuarine waters. Currently, over 70 different water bodies in Alabama's two coastal counties, many estuarine, have been listed as impaired (or polluted) for failing to meet the water quality standards tied to their Alabama Department of Environmental Management (ADEM)-designated uses.

Analyses such as the one performed by NASA reveal the patterns by which the estuary has been urbanized over time. The first area to exceed 25 percent impervious cover, the "tipping point" beyond which a drainage basin's receiving waters are substantially degraded, was the City of Mobile, where by the year 2000, its three major watersheds had each exceeded that threshold. Development is currently spreading south and west from that urban core.

Across the Bay in Baldwin County, areas around Daphne, Spanish Fort, Fairhope, Foley, Gulf Shores, and Orange Beach are the current "hot spots" of impervious cover. A Skylab image taken in 1974 showing a sediment plume spreading into Mobile Bay from construction of the Lake Forest development – prior to establishment of stormwater regulations – made Mobile Bay the "poster child" nationally for sedimentation. Within the subwatersheds that feed D'Olive and Tiawasee creeks and Joe's Branch in that area, a combination of rolling topography, highly erodible soils, 5 feet 6 inches of average annual rainfall, and impervious cover from residential and commercial development have provided "the perfect storm" of stormwater runoff, stream bank erosion, and sedimentation. Sediment-loading analysis and a comprehensive watershed management plan developed for that area enabled funding to be secured to restore streams and stem sedimentation.

As upstream municipalities such as Saraland and Bay Minette emerge as the new areas of urbanization, planning and managing stormwater where it falls will pay dividends in protecting the habitats and water that make coastal Alabama special. The increased cost of doing things right will be dwarfed by the enormous costs of future retrofitting and repair of damages caused by unmanaged stormwater runoff and non-point source pollution.

The economies and revenues of the Mobile Bay estuary are critical even to Alabamians living outside of the Mobile Bay drainage basin. The State Port and its private terminals, completely dependent upon the Bay, contribute over 92,500 direct and indirect Alabama jobs, directly and indirectly contributing over $356 million in direct and indirect tax impact to state and local governments, with a total economic impact of over $10.3

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# Mobile Bay Estuary

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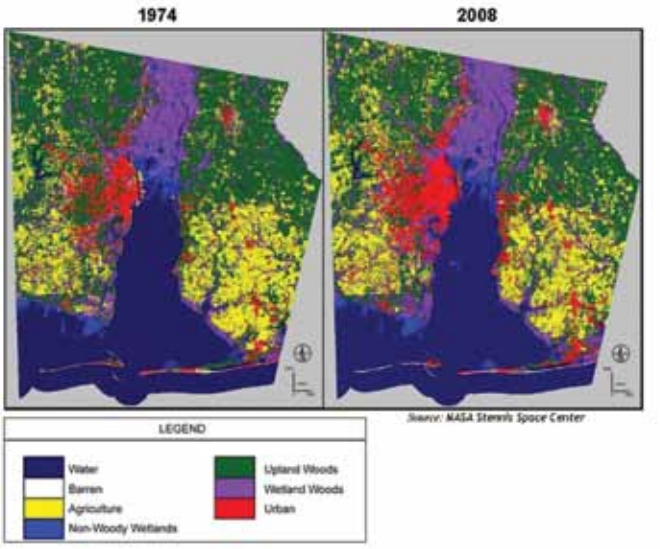
billion. The two other "cash cows" – tourism and fishing – are more dependent upon clean water and healthy habitats. Across the Gulf coast, tourism and recreation provide an estimated 620,000 jobs and $9 billion in wages. About one third, or $2.97 billion, of Alabama's $9 billion travel industry comes from Baldwin and Mobile counties. In 2008, an estimated 226 million pounds of seafood, worth about $88 million, entered Alabama and Mississippi ports. In 2006, approximately 25 million recreational fishing trips were taken in the Gulf, with 929,000 marine anglers coming from out-of-state. Coastal Alabama is carrying the ball, economically.

The natural resources of coastal Alabama provide economic and ecological engines that drive a significant part of the state's economy in addition to an unparalleled quality of life to anyone that lives or visits. Together, Alabamians can work to protect this nationally significant estuary, its range of extraordinary habitats, and its broad diversity of plants and animals, upon all of which our economic prosperity relies. The community is in the final stages of re-writing the original CCMP to update the priorities to conform to today's world. This new plan will prescribe watershed-based management of coastal resources, using the models employed in the D'Olive, Tiawasee, and Joe's Branch watersheds of sediment analyses, comprehensive watershed management plans, and then implementation of projects based in science to effectively address the problems that threaten our estuary and




Alabama's "cash cow." By prioritizing our waters and natural resources, our economy can thrive, and future generations can look forward to a coastal Alabama that looks as good as the one that we enjoy today. Theodore Roosevelt said, "The nation behaves well if it treats the natural resources as assets which it must turn over to the next generation, increased, and not impaired, in value." Good advice.

*To learn more about the Mobile Bay National Estuary Program, visit* **www.mobilebaynep.com**.


*This Skylab image taken in 1974 showing a sediment plume spreading into Mobile Bay from construction of the Lake Forest development – prior to establishment of storm-water regulations – made Mobile Bay the national "poster child" for sedimentation.*

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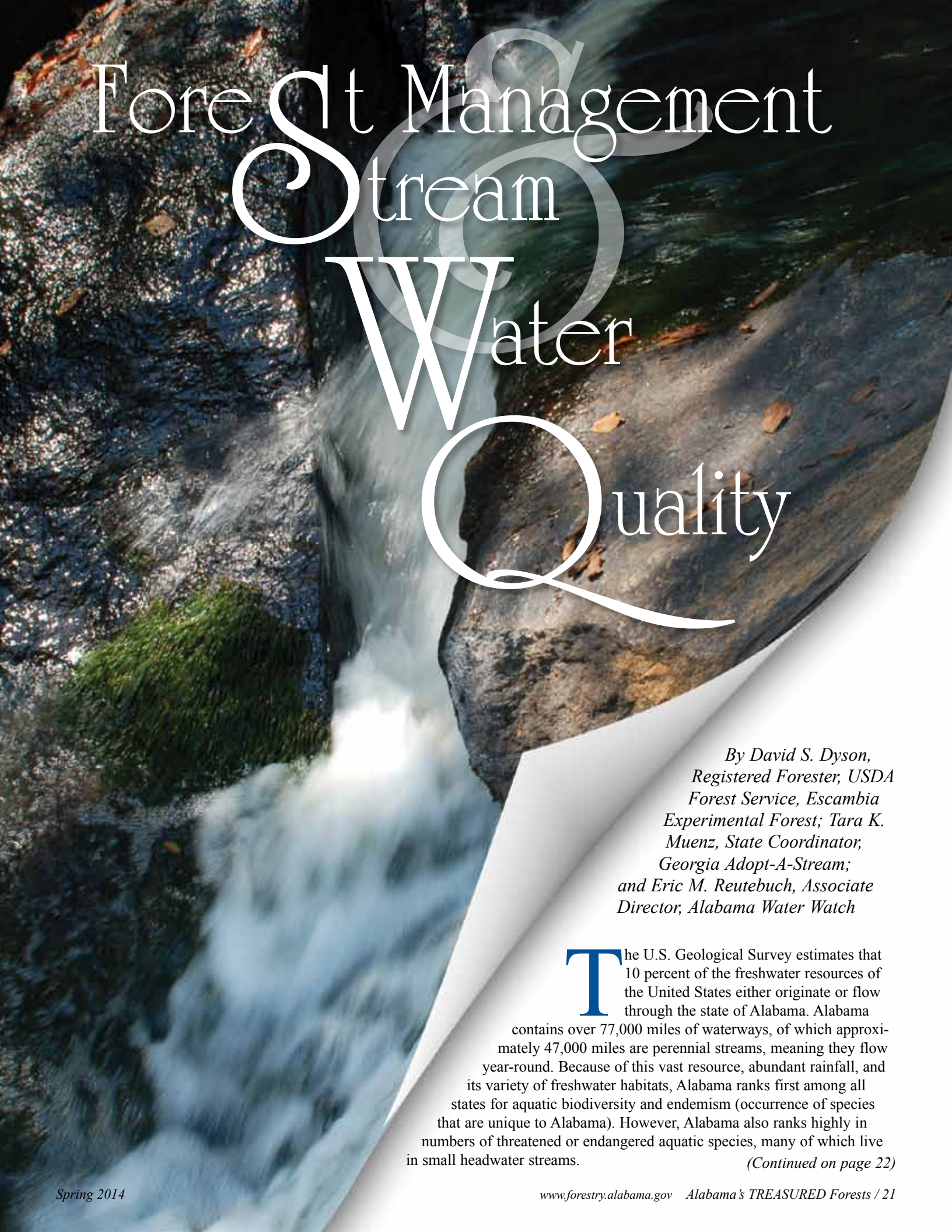

# Forest Management & Stream Water Quality

*By David S. Dyson, Registered Forester, USDA Forest Service, Escambia Experimental Forest; Tara K. Muenz, State Coordinator, Georgia Adopt-A-Stream; and Eric M. Reutebuch, Associate Director, Alabama Water Watch*

The U.S. Geological Survey estimates that 10 percent of the freshwater resources of the United States either originate or flow through the state of Alabama. Alabama contains over 77,000 miles of waterways, of which approximately 47,000 miles are perennial streams, meaning they flow year-round. Because of this vast resource, abundant rainfall, and its variety of freshwater habitats, Alabama ranks first among all states for aquatic biodiversity and endemism (occurrence of species that are unique to Alabama). However, Alabama also ranks highly in numbers of threatened or endangered aquatic species, many of which live in small headwater streams.

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# Forest Management

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In an effort to preserve and protect Alabama's abundant supply of clean water, Alabama Water Watch (AWW) was founded in 1992, with the mission of improving water quality and water policy through citizen monitoring and action. Housed at Auburn University's Water Resources Center, AWW trains citizen volunteers to collect scientific data on water quality (chemistry, bacteria, and macro-invertebrates) in all of Alabama's major river basins following U.S. Environmental Protection Agency-approved quality assurance plans. These data are available online and periodically analyzed by AWW staff members for use in scientific and outreach presentations and reports aimed at improving water use, management, and policy throughout the state. Citizen-science programs such as Alabama Water Watch are found throughout the United States and fulfill a large role in supporting data collection needs. These data provide a baseline of water quality information for many state agencies, watershed organizations, universities, and local governments for making important water-related decisions.

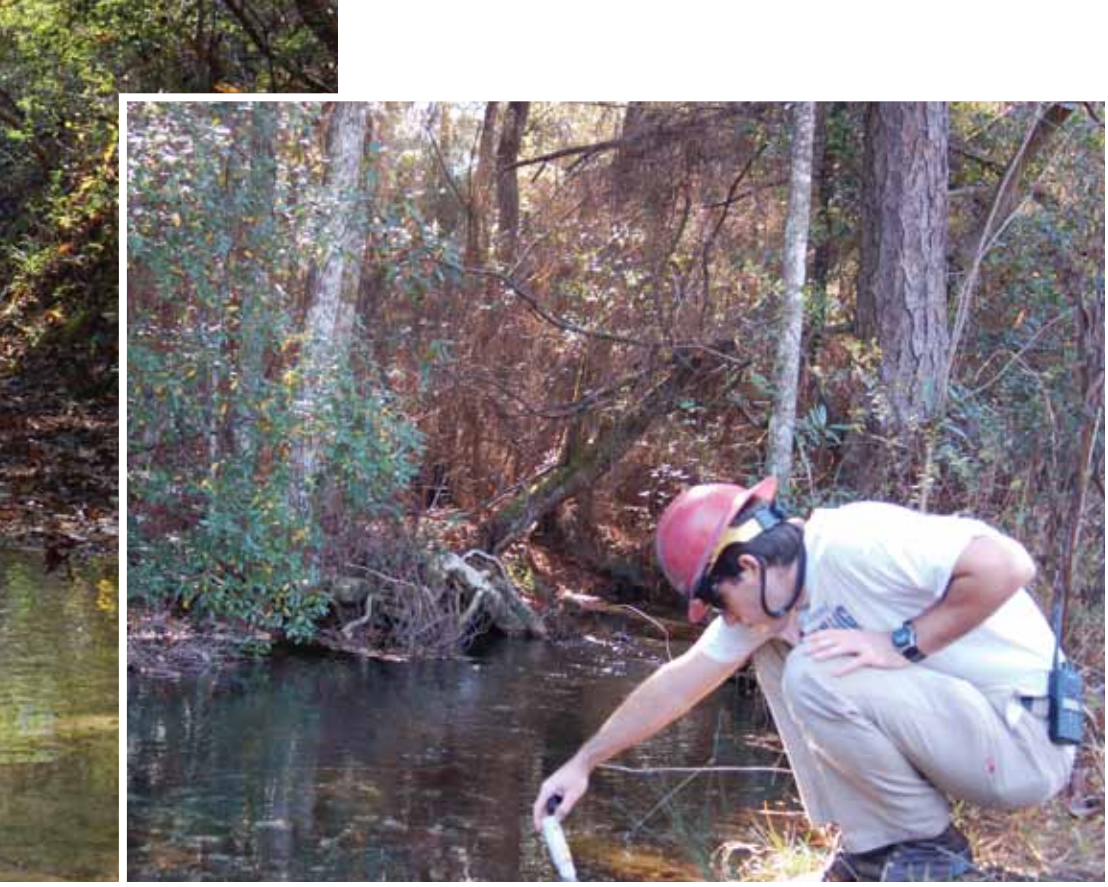
A strong component of volunteer-based organizations is having effective partnerships. In 2009, Alabama Water Watch partnered with its Georgia equivalent, Georgia Adopt-A-Stream (AAS), which is housed within the Environmental Protection Division of the Georgia Department of Natural Resources. Together, they drafted a Memorandum of Agreement "for the purpose of acknowledging the common elements of both programs. It is an agreement to accept each other's Quality Assurance/Quality Control training, workshops, and data collection methods."

Together, AWW and AAS have trained citizens from both states, supporting each other in shared river basins such as the Chattahoochee, Tallapoosa, and Coosa basins. Both programs have been in existence for over 20 years, successfully certifying thousands of volunteers to monitor the health of their local lakes, streams, coastal estuaries, and freshwater wetlands. Additional partnerships also abound, creating connections with teachers and schools, Extension groups, universities, river keepers, and many more. It is easy for citizens to grasp the content of the training workshops, and many are interested in learning about their water quality through monitoring physical/chemical and biological properties.

One recently-developed partnership is among Alabama Water Watch, Georgia Adopt-A-Stream, and the USDA Forest Service, Southern Research Station. As part of the research program at the Escambia Experimental Forest (EEF) near Brewton, Alabama, scientists were interested in the effects of various types of forest management on stream water quality. The EEF is a 3,000-acre tract managed in cooperation with T. R. Miller Mill Company of Brewton for longleaf pine management research. It is a forested, mesic upland site on the Upper Coastal Plain that receives an average of greater than 60 inches of rainfall per year and is characterized by rolling topography and dendritic drainage.


*Figure 1 - Map of South Fork and Red Branch sampling sites at the Escambia Experimental Forest in Escambia County, Alabama.*

Since receiving training in chemical monitoring from the Georgia Adopt-A-Stream Program in 2010, Forest Service technicians have collected and submitted data to Alabama Water Watch. Two streams on the EEF are actively monitored: South Fork of Lindsey Creek and Red Branch (Figure 1). South Fork is a third-order stream at the sampling point, and its watershed is approximately 785 acres and contains 140 feet of relief. The stream is primarily fed by groundwater and shows tannins only after large rain events. In contrast, Red Branch is a second-order stream. The watershed above the sampling point is 700 acres with 140 feet of relief. Red Branch consistently shows tannic water, and discharge is more affected by rainfall patterns. Both streams feed



into fourth-order Lindsey Creek, leading to the Conecuh River and eventually Escambia Bay.

Water chemistry monitoring at the EEF includes four tests conducted monthly at baseflow levels: water temperature, pH (acidity), dissolved oxygen, and electrical conductivity (a measure of dissolved minerals present in the water, such as the cations sodium, potassium, calcium, aluminum, etc.). With proper training, such tests are simple to conduct and provide scientists with baseline data about a stream's health. Data from the EEF is especially valuable because it represents near-reference conditions, as the South Fork and Red Branch watersheds are undeveloped and largely forested, representative of over 60 percent of the state of Alabama. Furthermore, these watersheds are actively managed using Alabama's Best Management Practices for forestry (BMPs), so data from these sites demonstrate the effects of using BMPs.

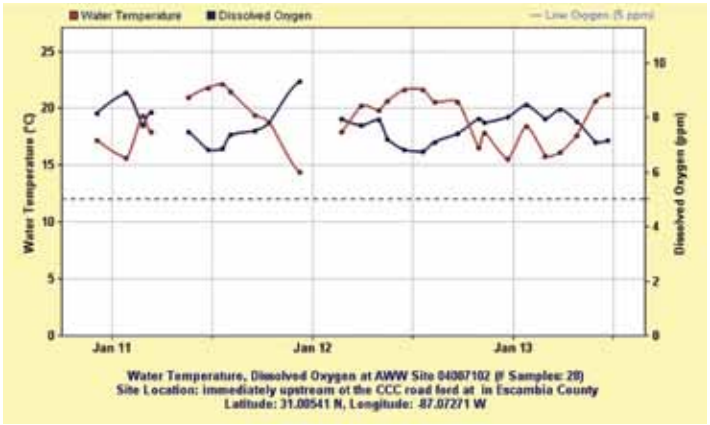
Three years of data show that despite somewhat different ecology, both South Fork and Red Branch consistently exhibit good water quality (Figures 2 and 3). Because their sources are mostly groundwater, stream water temperature varies little throughout the year, but is influenced seasonally. However, pH, dissolved oxygen, and conductivity remain highly consistent throughout the year. Both streams are influenced by rainfall events and surface runoff, but their forested watersheds are quite effective at moderating the effects of storm water. The consistent chemistry of these streams, relative to that of negatively-impacted streams, demonstrates how important intact forest buffers are to our water supply and also shows how proper forest management can have minimal impacts on water quality.

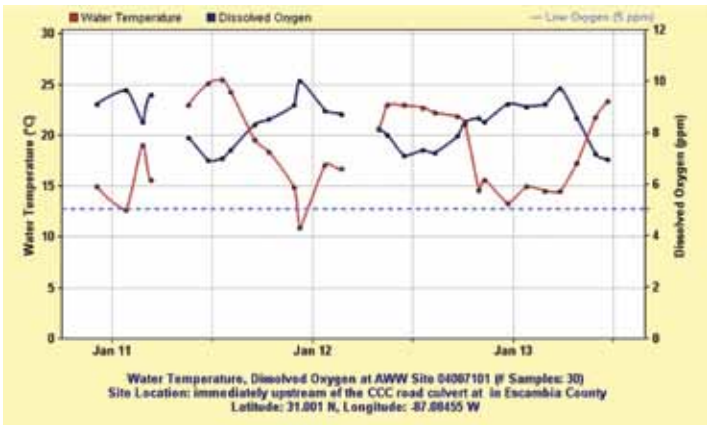
Monitoring surface water conditions is vital to ensuring the health of aquatic ecosystems and providing safe drinking water. Approximately 60 percent of public water supplies in Alabama are from above-ground sources, and these water systems depend on clean, healthy streams to replenish their reservoirs. Active stream monitoring programs such as Alabama Water Watch and Georgia Adopt-A-Stream not only support public water systems by providing an additional layer of water quality testing, but also alert authorities to potential future problems by evaluating long-term water chemistry and biology data. Furthermore, volunteer-led water monitoring programs can quickly identify areas that are not safe for recreation and accelerate steps to rectify problems. By partnering to generate high-quality data, Alabama Water Watch and Georgia Adopt-A-Stream are able to inform policymakers responsible for protecting and managing Alabama and Georgia's water supplies to support public health, recreation, agriculture, industry, and overall quality of life.

*For more information, visit:*
*Alabama Water Watch:*
***www.alabamawaterwatch.org***

*Georgia Adopt-A-Stream:*
***www.georgiaadoptastream.org***

*Escambia Experimental Forest:*
***www.srs.fs.usda.gov/longleaf/forests/escambia.html***



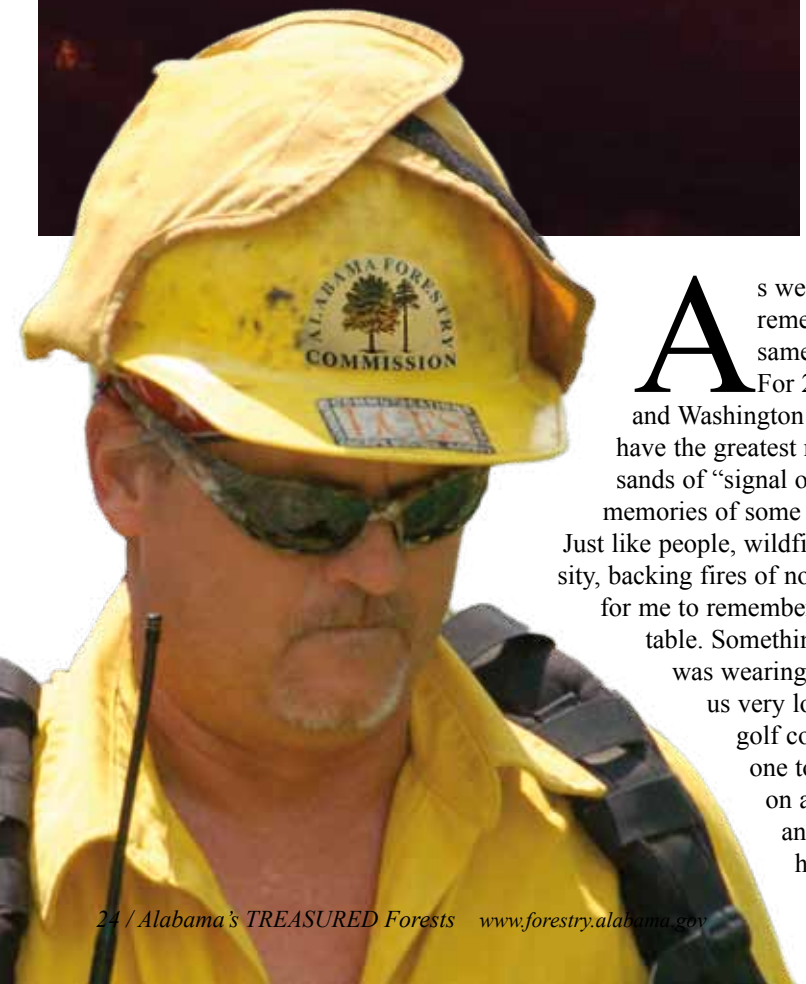

*Figures 2 & 3 - Temperature and dissolved oxygen data from South Fork and Red Branch exhibit the classic inverse relationship of healthy streams.*

Marine Lab Road fires

*A Firefighter's Journal:*

# Wildfires Encou

*By Ronnie Grider, Forestry*
*Alabama Fores*




As we travel life's road, we meet all kinds of people. Some will be remembered for a lifetime, while others will be forgotten tomorrow. The same can be said by wildland firefighters of the fires they encounter. For 25 years, I have been responding to wildfires in Mobile, Baldwin, and Washington counties. These three counties in southwest Alabama historically have the greatest number of wildfires in the state. After suppressing literally thousands of "signal ones" [agency call sign for wildfires], I thought I'd share a few memories of some wildfires I have encountered.

Just like people, wildfires come in all shapes, sizes, and personalities. Most are low intensity, backing fires of no great significance. Over time, these types of fires become difficult for me to remember unless something significant happens that makes the day unforgettable. Something such as having a homeowner talk to me about the fire while he was wearing only half a shirt and nothing else – that particular fire didn't take us very long to suppress. Or the time we were working a small fire next to a golf course where nude women were riding around in golf carts. Now that one took a little longer to control. It's also hard to forget nearly stepping on a pile of Eastern diamondback rattlesnakes! A 5-foot female snake and a 4-foot male rattler, coiled and breeding, make a pile, right? And how about seeing a mother alligator protect her babies in a small

Dow Road Fire


Possum Road Fire (Gulf State Park)

*y Specialist Mobile County,*
*try Commission*


Gethsemane Road Fire

Photo by John Goff

pool of water located in a drought-stricken swamp. All were safe and sound after the fire passed over.

Other wildfires are remembered because they are repeated annually. They involve the same property, the same circumstances, and the same landowners, year after year. Those same landowners who "have no idea how this fire got started" or have "just got back from town" when questioned about the fire located on their property. Imagine that.

Quite a few fires are purely accidental. Many involve kids . . . kids playing with matches – be honest; we've all done that . . . kids shooting fireworks – we've all done that . . . and kids dumping ashes that are still hot from their parents' fireplace – I've done that. A good many more involve adults . . . adults and lawnmowers . . . adults and hay balers . . . adults and catalytic converters. I once went to a fire where a young guy with a new job (it was his first day) and a new pick-up truck (it only had 90 miles on it) got stuck in a mud hole, surrounded by cogongrass. His truck didn't make it; I'm not sure about his job. For those who have never actually seen cogongrass burn . . . imagine a dry, cured, solid field of hay that is waste deep and it has been set on fire. Now triple its intensity and you can understand why folks say cogongrass burns like gasoline. That's actually what it's compared to, GASOLINE!

Nature also gets its share of the blame for wildfire ignition . . . lightning from a dry front passing through . . . high winds causing power lines to arc. Or how about this? A meteor crashing to earth, right next to a burn barrel that was adjacent to the wood line . . . this is what the "eyewitness" homeowner described when questioned about the fire. There's no "cause" code [ignition classification] for that!

Incidentally, there is a cause code for trains. Trains start fires in the most remote places . . . places without roads . . . places so isolated that you have to hike in with fire rakes, shovels, and backpack pumps, and you hike out with the stench of burnt creosote in your lungs. Burning cross ties have a unique odor. Tire fires, fires on illegal dumps, fires near chemical plants or open sewers . . . these all offer quite a diverse range of fragrances.

*(Continued on page 26)*

# Wildfires I Have Encountered

*(Continued from page 25)*

Negligence and unlawful burning account for many wildfires. People burning without a permit or inadequate control lines have led to some of our larger "campaign" fires. People who leave burn piles unattended, and folks using dug-out pits and burn barrels for household trash will eventually get a visit from their local volunteer fire department (VFD), the Alabama Forestry Commission (AFC), law enforcement, or all three.

Then there's arson, and plenty of it. Whether it's spite, disgruntled neighbors, unethical hunters, domestic disputes, or pyromania, these criminals cost our landowners and citizens plenty of tax dollars each fire season. Most use a cigarette lighter to do their business. A few prefer the "slow match" tactic, wrapping a lit cigarette with kitchen matches so that when they ignite, the arsonist is long gone. Retired AFC Law Enforcement Officer Jim Wade was a master at finding such devices. Whatever method they use, they all seem to prefer multiple *sets*. I have been on scene with 23 separate sets. The responsible individuals were arrested and punished accordingly.

A short list of some of the more memorable wildfires would have to include the following:

**Lonnie Walker Road Fire** – Just beginning my AFC career, I was brand new to the job. Seeing that *crown fire*, co-worker Aaron Hunt looked at me and said, "This is the kind of fire I like." It took three days and a great deal of "*potato patching*" to get a handle on this 2,000-acre fire. I learned a lot not only about fire behavior, but my fellow employees and myself as well on this fire.

**Possum Road Fire (Gulf State Park)** – When I crossed the Cochrane Bridge, I could see this smoke column from 70 miles away. It looked like a thunderstorm rolling in off the Gulf.

**Big Creek Swamp Fire** – After three days of working a fire front so hot and intense, I knew I should spend more time in Sunday School.

**Dow Road Fire** – Co-worker Chet Hatchet was working that wide track when the air turned orange and *fire devils* sprinted across a four-lane road and its median.

**Marine Lab Road fires** – Several thousand acres, several different years, lasting several days each time . . . some of the largest fires in Alabama were located on this *"rotten" ground*.

**Mobile County Property fire** – Less than 100 acres, this fire was burning in a wetland that was anything but wet. The noise from canes popping and water plants hissing as steam escaped was so loud and intense, it sounded like a 747 taxiing for take-off.

**Todd Acres Fire** – Co-worker Steve Carr and I chased *spot fires* and *slop-overs* for two days on this wildfire that turned a mature stand of evergreen live oaks to white ash. It was unbelievable.

**Yosemite National Park** – Our crew spent 14 days in the Sierra Nevada Mountains doing *mop-up* on wildfire at one of the most beautiful places on earth . . . those giant trees and El Capitan, my oh my.

**Idaho 1994** – While protecting a remote ranch on the Salmon River, our crew was cut off from base camp by falling *snags ("widow makers")* and had to *spike out* for four days. We cut a lot of line, lost a lot of sweat, and had no shower for four days.

**Gethsemane Road Fire** – East Texas was so arid in 2011, the creeks were drying up, and the beavers looked dazed and confused with no running water to dam up. Our strike team carried out the initial attack on this thunderous blaze that started as two arson fires converged into one massive inferno. It made a run and devoured 1,400 acres in about five hours. As it turns out, this is the kind of fire I like, too.

These wildfire memories are mine and they are true. I hope you enjoyed reading about them. I wonder what next fire season has in store?

## Firefighter Terminology

- ► crown fire – a wildfire that advances from top to top of trees or shrubs more or less independent of a surface fire
- ► fire devils – spinning tornado-like whirlwinds of flame throwing sparks and embers
- ► mop-up – tactic of working along lines already established, putting out any small lingering fires by digging up or burying hot spots with sand while spraying and stirring in water, or mixing dirt with embers then spreading them out until no heat can be felt
- ► potato patching – technique where control lines are plowed in parallel rows, adjacent to the spreading fire
- ► rotten ground – soft, wet area where it is very difficult if not impossible to drive firefighting equipment
- ► sets – fires started by arsonists
- ► slop-overs – escaping embers causing flame-ups and fires to spread outside the boundaries of a control line
- ► snags ("widow makers") – hazardous dead trees that are still standing, or branches/treetops that are poorly or no longer attached to tree, but still tangled overhead
- ► spike out – set up a remote "spike" camp, usually near a fire line and lacking the logistical support provided at a larger base camp
- ► spot fires – fires igniting ahead of an advancing flame front

# Alabama Certified Prescribed Burn Manager

## *2014 Training Schedule*

**Who should take the Alabama Certified Prescribed Burn Manager (CPBM) "Certification Course"?** All forest landowners, foresters, wildlife biologists, consultants, contractors, or agency personnel who are interested in the use of prescribed wildland fire as a management tool and are seeking certification should attend. Out-of-state participants are welcome.

**Who should take the Alabama Certified Prescribed Burn Manager (CPBM) "Re-Certification Workshop"?** Any currently-certified Alabama CPBM who needs the required 6 CEUs every five years for re-certification should attend.

These CPBM courses and workshops are sponsored and funded by the Alabama Forestry Commission (AFC). Due to a reduction in government grant funding, a participation fee will now be charged to partially cover the cost of the training sessions.

Instructors are Kent Hanby, RF, CF, CPBM, and John Stivers, RF, CF, CPBM. Details about the AFC's Alabama Certified Prescribed Burn Manager Program may be found at **www.forestry.alabama.gov/PrescribedBurnCertification.aspx** for "certification" and **www.forestry.alabama.gov/prescribed_burn_manager_re.aspx** for "re-certification."

**Registration**

PRE-REGISTRATION IS REQUIRED. Registration is limited to 40 students for courses and 50 for workshops. Please visit **http://afcforms.forestry.alabama.gov/certclasses.aspx** to register online. The registration fee is $125 for courses and $75 for workshops. Fees can be paid in advance by mailing a check or money order to:

Alabama Forestry Commission
Forest Operations Division
Attn: Bethany Elliott
Post Office Box 302550
Montgomery, AL 36130-2550

For those who do not pay in advance, payment by cash or check only will be accepted on the first day of each course and at the beginning of each workshop, prior to the start time. Only paid attendees will be allowed to participate in the training sessions. For more information on registration, contact the AFC at (334) 240-9334. (Do not contact the course/workshop location regarding registration or course details.)

### CERTIFICATION (4-day course)

**July 14 – 17, 2014** (Monday – Thursday) 7:30 a.m.

Solon Dixon Forestry Education Center
12130 Dixon Center Road
Andalusia, Alabama 36420
**(http://sdfec.auburn.edu/)**
Arrangements for lodging and meals should be made with Teresa Cannon at the Solon Dixon Center, (334) 222-7779.

**August 5 – 8, 2014** (Tuesday – Friday) 7:30 a.m.

Auburn University
School of Forestry and Wildlife Sciences
602 Duncan Drive South
Auburn, Alabama 36849
**(http://wp.auburn.edu/sfws/about/)**

**Sept. 8 – 11, 2014** (Monday – Thursday) 7:30 a.m.

Guntersville State Park Lodge
1155 Lodge Drive
Guntersville, Alabama 35976
**(www.alapark.com)**
Arrangements for lodging and meals should be made with the lodge, (256) 505-6634 (direct line).

### RE-CERTIFICATION (1-day workshop)

**August 27, 2014** (Wednesday) 8:30 a.m.

Alabama 4-H Center
892 4-H Road
Columbiana, Alabama 35051
(205) 669-4241
**(http://www.aces.edu/4-H-youth/4H-Center/)**

**September 19, 2014** (Friday) 8:30 a.m.

Reid State Technical College
Edith A. Gray Library and Technology Center
Ted Bates Road
Evergreen, Alabama 36401

**September 25, 2014** (Thursday) 8:30 a.m.

Auburn University
School of Forestry and Wildlife Sciences
602 Duncan Drive South
Auburn, Alabama 36849
**(http://wp.auburn.edu/sfws/about/)**

# Containers and Growing Longleaf Pine

*Reprinted with permission from CompassLive, the online science magazine of the USDA Forest Service SRS. For more about forest science in the South, sign up for weekly updates from CompassLive at* ***www.srs.fs.usda.gov/compass/****.*

Do the types of container used to grow longleaf pine seedlings really make that much difference? Researchers – based in the Pineville, Louisiana, branch of the Southern Research Station (SRS), Restoring and Managing Longleaf Pine Ecosystems unit – continue to show that indeed they do.

Initiatives interested in restoring longleaf pine across its native range in the southeastern United States focus on increasing the acres growing the tree from 3.4 million acres to 6 to 8 million by the mid-2020s. This will require reforesting or converting lands to longleaf pine, primarily by planting seedlings. Demand for longleaf pine seedlings also continues to increase as landowners and managers become more aware of the advantages of planting longleaf pine in areas prone to disturbances such as fires and hurricanes.

Up to 69 million seedlings are produced every year, with 70 to 90 percent grown in containers. Container-grown seedlings are twice as expensive as bare-root seedlings, so managers reasonably expect a higher long-term survival rate from container-grown seedlings.

Almost 10 years ago, SRS research forester Dave Haywood and plant physiologist Mary Anne S. Sayer noticed that an unusual number of longleaf pine saplings were leaning or had toppled after wind storms passed through plots on the Palustris Experimental Forest (the Palustris) [located on the Kisatchie National Forest in Louisiana]. The researchers suspected that the saplings were container-grown, and that the problem was poor root system architecture: the taproots were too deformed or lateral roots too unevenly distributed around the taproot to hold the stem upright against the wind. Root architecture is a specific interest of their colleague Shi-Jean Susana Sung, SRS research plant physiologist also based in Pineville.

In 2006, Sung revisited plots on the Palustris where artificial regeneration experiments had been established three decades before and dug up longleaf pine trees 12 to 35 years old to look more closely at their root systems. She sampled trees grown from seeds, bare-root seedlings, and in containers. As she expected, the trees grown from seeds had the longest taproots and more evenly distributed lateral roots, both signs of good root architecture, while trees from container-grown seedlings had the shortest taproots and an uneven distribution of woody lateral roots.

From these and other results, Sung recommended that those growing longleaf seedlings start using containers with a copper-coating on the inside cavity wall. Copper (in miniscule amounts) essentially "zaps" lateral roots as they grow towards the container cavity wall, keeping these roots from turning vertically. When the seedlings are outplanted, the lateral roots resume growing into their natural architecture.

These recommendations are reinforced by recent findings by all three researchers from a study Sayer and Haywood installed on the Palustris in 2004 to look at effects of both container size and copper treatment. At five years, they found that seedlings outplanted from copper containers were significantly taller and had greater volume, and that trees outplanted from the smallest containers were significantly smaller than trees from medium and large containers.

In a 2012 article which reports their findings, the researchers recommend that to get seedlings out of the grass stage quickly and into height growth, managers should take the following steps:

1. plant large-container seedlings if not using copper;
2. if planting medium-size seedlings, grow them in copper containers; and
3. on a grassy site, plant large seedlings grown in copper containers to help them compete with the understory.

To access the full article on copper root pruning and cavity size in relation to longleaf pine growth, visit **www.treesearch.fs.fed.us/pubs/42191**. For more information, contact: Dave Haywood at dhaywood@fs.fed.us; Mary Anne S. Sayer at msword@fs.fed.us; or Susana Sung at ssung@fs.fed.us.

# MEMORIALS

## William "Jack" Hopper 1924-2014

With sadness we say goodbye to another individual who played an important role in the history of the Alabama Forestry Commission. William 'Jack' Hopper of Eva passed away on January 27, 2014, at the age of 89. Born on September 21, 1924, in the Oden Ridge community of Morgan County, Mr. Hopper was a veteran of World War II. He was a businessman in the town of Eva for 52 years. Along with his wife, he opened his first business, Jack Hopper's General Merchandise. This enterprise later grew into Hoppers Building Supply and Jack's Foodland. He was a member of the Masonic Lodge No. 854 at Simcoe for 48 years.

Hopper's other accomplishment include helping to establish the Cullman County E-911 of which he was a member of its board from 1989 to 2011. Appointed as a Commissioner on the Alabama Forestry Commission by Governor George C. Wallace, Hopper served for five years, 1985-1990, and was elected chairman in 1989. He helped establish the experimental nursery located at Wallace State Community College in Hanceville, which was subsequently named in his honor. He was a true pillar of the community and will be missed by many.

*(Portions excerpted from the obituary published in the Decatur Daily, January 29, 2014)*

## John Langford 1926-2013

Southern gentleman and ambassador for longleaf, Dr. John Langford of Covington County passed away on December 10, 2013. Born on August 23, 1926, on a small farm, just a walk through the woods from the home where he spent his latter years, John Reuben Langford worked hard all his life. In his early years, he labored with his parents and six siblings driving mules, farming peanuts and cotton. While serving on a carrier in the Pacific during World War II, he did other sailors' laundry to send home money. He then used his G.I. bill funds to graduate from Auburn University School of Veterinary Medicine. After establishing one of the first veterinary clinics in Daytona Beach, Dr. Langford went on to serve as president of the Florida Veterinary Medical Association as well as the American Association of Veterinary State Boards.

On the rare occasion he took a break from his professional responsibilities, he researched his family genealogy at libraries around the country. He was proud to tell people his ancestors made the crossing from England as early as 1630. Passionate about heritage, he was involved in the Sons of the American Revolution and was coroneted a 33rd degree Mason in the Masonic Lodge. A dedicated church member, he spent most of his adult life teaching Sunday school.

Returning to Dozier, ostensibly to retire, Dr. Langford began a second career in forestry. After attending the forestry school at Lurleen B. Wallace Community College, he spent hours cruising his red Lincoln Towncar through the forests he cultivated in loblolly and longleaf pines. As with veterinary practice, his dedication led to excellence. He chaired the Covington County Forestry Committee, earned the Covington County Outstanding TREASURE Forest Award (twice, the only landowner to do so), won the Southeast Regional Helene Mosley TREASURE Forest Award, was the Statewide Outstanding Tree Farmer, and Outstanding Landowner, among other accolades. Dr. John Langford was an enthusiastic ambassador for re-establishing longleaf pines in the region of Alabama so significant to his legacy.

*(Portions excerpted from the obituary published in the Montgomery Advertiser, December 12-13, 2013)*

## Gerald "Mac" McLeod 1927-2013

Today there is one less voice to champion the cause for stewardship. Gerald "Mac" McLeod passed away on September 29, 2013, at the age of 85. Mac, as he was known to family and friends, was born October 27, 1927. He was a TREASURE Forest landowner and resident of Mobile County.

Mac proudly served his country in the United States Air Force, and worked for the GM&O Railroad for 30 years. After "retiring," he began planting trees all over southern Alabama, and he served as president of the Mobile County Chapter of the Alabama TREASURE Forest Association. An avid conservationist who took every opportunity to speak on the merits of stewardship, Mac McLeod will truly be missed.

# In Their Own V

December 3, 2013

To Gary Cole,
Brewton, Alabama:

The City of Foley would like to express our continued appreciation for the Alabama Forestry Commission in burning our Graham Creek Nature Preserve annually. These efforts help to manage our longleaf and pine savanna habitats covering over 250 acres. Also these efforts increase our wildlife populations and preserve the habitat for over 10 Alabama endangered plant species. Our local Forestry Commission employees are a true asset and we appreciate all of their efforts.

This year we would like to request assistance with the prescribed burning of approximately 200 acres ranging from the center of the Preserve westward to pine savannas burned last year. This effort will reduce fuel loads in the center of the Preserve and open up areas for longleaf pine to flourish. Also we expect to see increased populations of wildlife and endangered plant species. The City will be able to plow any necessary fire breaks for the burn.

In addition to these efforts, the City would like to discuss the possibility of a joint project with the City, Auburn University Center for Forest Sustainability, and the Forestry Commission. We will be in attendance at the Forestry Workshop in New Orleans on December 18, 2013. The project we plan to propose includes a demonstration forest with a prescribed burning program and training area, an invasive species removal program and demonstration area, and a nursery area to produce longleaf pine seedlings for reforestation efforts for the Alabama Gulf Coast. The project would also include efforts to monitor water quality and riparian buffer management. Auburn University has been monitoring the Graham Creek Nature Preserve for several years looking at multiple parameters, so there is baseline data for the project. We would like to meet with you at your earliest convenience to discuss the project ideas.

Thank you for your leadership with the prescribed burns and we look forward to working with the Alabama Forestry Commission on a RESTORE project.

Leslie Lassitter Gahagan
Environmental Manager
Community Development Department, City of Foley
Foley, Alabama

ember 13, 2013

To Dan Jackson,
Montgomery, Alabama:

Clifford [Hawkins] and other great urban forestry professionals from across the state registered several tree events – we're so pleased to include the excellent community tree work being done in Alabama in the nationwide celebration of community trees during National NeighborWoods Month. Thank you for helping to get the word out, and for all you did this October and all you do year-round for urban and community forests.

Best,
Leland Milstein
Program Director
Alliance for Community Trees
Washington, DC

22 June 2013

To Shelby County [Alabama Forestry Commission]
Columbiana, Alabama:

Cary [Rhodes], thanks so much for traveling to Montevallo and sharing your important information with our children and us. We also loved the having Smokey join us for the close of our week with the children.

The activities book on fire safety was a hit. Thanks for delivering it. I found a Smokey certificate to give to each child with the book. Also the catalog you shared with me gave us several other items to get tied into your session. I got fireman's hats free from Fire House Subs. We had outdoor safety sessions on Monday, our first day, and tied what you were going to do with general outdoor awareness and safety.

Thanks again and what you shared tied wonderfully into our overall theme of enjoying the out-of-doors as well as taking care of it.

Linda Cicero, Coordinator
PMLF Nature Camp6
Parnell Memorial Library Foundation (PMLF)
University of Montevallo
Montevallo, Alabama
November 13, 2013

# Words

## Alabama Clean Water Partnership

PO Box 3623 – Montgomery, AL 36109
Phone: (205) 266-6285 – Web site: www.cleanwaterpartnership.org

RECEIVED
SEP 10 2013
AFC
STATE FORESTER

September 9, 2013

Linda Casey, State Forester
Alabama Forestry Commission
PO Box 302550
Montgomery, AL 36130-2550

Dear Ms. Casey,

On behalf of the Alabama Clean Water Partnership (ACWP) Board of Directors and its ten associated river basin committees, I would like to thank you and the employees of the Alabama Forestry Commission (AFC) for your support of the ACWP and for all each of you do to ensure Alabama's forests contribute not only to abundant timber and wildlife, clean air, and a healthy economy, but also to clean water across our beautiful state. AFC staff members are active and important participants in our ACWP basin stakeholder process, educating Alabama's citizens and providing reliable support representing the "forestry side of the equation" for clean water.

An example of the cooperation and partnership between the ACWP and AFC was exhibited recently when the ACWP sought help with a project at Tannehill Ironworks Historic State Park which no longer receives state funding. When a new wastewater treatment system was required due to new, more stringent statewide water quality standards, the AFC stepped in as a project partner. Brad Lang, along with other AFC personnel, created a phyto-remediation plan for the project and when the (2) 16,000 lb. treatment plants needed placing on site, several AFC crews volunteered and were successful in moving and positioning the units for the park.

In Chilton County, local AFC personnel participated in the first ever Water Festival for 4th graders in March of 2013, serving in the planning process as well as volunteering the day of the event. With much praise received from the community, planning is currently underway for a repeat performance in March 2014.

In the North River Watershed of the Black Warrior Basin, the Alabama Forestry Commission continues to be a major project partner, offering the ACWP expertise and guidance in the implementation of the North River Watershed Management Plan, including the submission of forestry related grant applications by Jim Jeter, in an effort to supplement ongoing watershed protection activities.

And in the Conecuh-Sepulga and Blackwater Basin, Mike Older, who has served as a key partner on the basin's steering committee since its inception more than ten years ago, has stepped up to become the latest chairman of the basin steering committee.

**ACWP Watersheds:**
Alabama/Tombigbee – Black Warrior – Cahaba – Chattahoochee/Chipola – Choctawhatchee/Pea/Yellow
Conecuh/Sepulga/Blackwater – Coosa – Coastal/Escatawpa – Tallapoosa – Tennessee

Across the state, AFC personnel are active participants in ACWP river basin meetings, educating the general public about the value of our forests in insuring both a healthy economy and environment, and offering the forestry perspective to water quality discussions. We greatly appreciate them for their involvement and the knowledge they bring to those stakeholder groups and understand and appreciate the time and commitment this takes.

Thank you again for Alabama Forestry Commission's commitment to clean water and your support of and partnership with the Alabama Clean Water Partnership, as we work together to assure clean water for Alabama's citizenry.

Sincerely,

Allison Jenkins, Executive Director
Alabama Clean Water Partnership

*Alabama's TREASURED Forests*
513 Madison Avenue
P.O. Box 302550
Montgomery, Alabama 36130-2550

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OF ALABAMA Plants

# Beautyberry

*(Callicarpa americana)*

*By Fred Nation, Environmental Services, Baldwin County*

One of our most frequent shrubs in the Southeast, American beautyberry ranges from Maryland to Missouri, west to Texas, south through Florida. It occurs throughout Alabama, mostly on well-drained sites. Since it is so frequently seen across our countrysides, it is viewed or dismissed as a weed. Our familiar beautyberry may, however, deserve another look as an attractive, durable native shrub that not only feeds the birds, it even keeps the bugs away!

Since pioneer times, farmers and stockmen have inserted beautyberry branches beneath the bridles of horses and mules, to keep mosquitoes and ticks away from the animals' faces. For many years *Callicarpa* leaves have been reported, mostly by herbalists, to be an effective insect repellent when rubbed on the skin. Well, here's a newsflash: apparently it really works! United States Department of Agriculture (USDA) researchers have established that four chemicals isolated from *Callicarpa* are effective as insect repellents. According to *Science Daily*, one of them, callicarpenal, has been patented by the USDA's Agricultural Research Service as an arthropod repellent.

Photos by Fred Nation

What are beautyberry's family relations? This question seems particularly interesting for *Callicarpa americana*, because there is apparently a taxonomic disagreement among some of the experts. To cite just a few examples, the *USDA Plants Database* places it in Verbenaceae, with the verbenas; on the other hand, several university plant atlases, including both Florida and Alabama, place it in Lamiaceae, the mint family. Who's right? Both families seem anatomically reasonable, but the mint family appears to be the more widespread current view, so for now we will place beautyberry with the mints.

Beautyberry is an open, irregularly shaped woody shrub, to about 8 feet tall, with distinctive bright-green, prominently-veined foliage. The pointed leaves are deciduous, ovate to lance-ovate, sharply dentate, to about 8 inches long, with stellate (star-shaped) hairs beneath. The foliage is frequently foraged by white-tailed deer.

Masses of very small white or pale pink flowers occur in the axils of the opposite, short-stalked leaves in the spring, which develop into distinctive, rounded clusters of small, shiny drupes around the stems. The fruits are conspicuous as they ripen to a bright milky purple color. A white-fruited form is occasionally seen.

Like many familiar plants, *Callicarpa americana* has several common or colloquial names. In addition to beautyberry, it has been called bunchberry, sourbush, sowberry, and French mulberry. This last name is curious, because it is not French and it is not a mulberry. The genus name, *Callicarpa*, is from two Greek words which translate into "beautiful fruit." Unfortunately, they are astringent and do not taste nearly as good as they look, although they have occasionally been made into jelly, preserves, and wine. The fruits, which persist well into cold weather, are important winter forage for many familiar birds, including thrashers, cardinals, mockingbirds, and bobwhite quail.